



PHASE II SITE INVESTIGATION REPORT

**Municipal Parking Lot
Railroad Street and New York Avenue
Huntington, New York**

Remedial Action Contract 2 (RAC 2)

U.S. Environmental Protection Agency Region II

Contract EP-W-11-043

Prepared by:

EES JV

*a Joint Venture between **Sullivan International Group, Inc.** and **Nobis Engineering, Inc.***

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MUNICIPAL PARKING LOT - RAILROAD STREET AND NEW YORK AVENUE
HUNTINGTON, NEW YORK

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1.0 INTRODUCTION

This Phase II Site Investigation (SI) Report was prepared by the Environmental Engineering Services Joint Venture (EES JV), a joint venture between Sullivan International Group, Inc. and Nobis Engineering, Inc. This report was prepared for the United States Environmental Protection Agency (EPA) Region II under the Remedial Action Contract (RAC), Contract No. EP-W-11-043, Work Assignment No. 001-SION-0200, Amendment 8 dated February 7, 2014.

This Phase II SI Report presents the results of a Targeted Brownfields Assessment (TBA) conducted at the municipal parking lot associated with Huntington Station, located southwest of the intersection of Railroad Street and New York Avenue (the Site) in Huntington, New York. A Locus Map is included as Figure 1. A Site Plan is included as Figure 2.

EPA's TBA program is "designed to help minimize the uncertainties of contamination often associated with Brownfields," which by definition are sites that "may be contaminated by a controlled substance; contaminated by petroleum;...or mine-scarred land." The TBA was provided as a "grant of service" to the Town of Huntington Economic Development Corporation (EDC). The TBA grant included a Phase I Environmental Site Assessment (ESA), completed by EES JV in March 2014, in addition to this Phase II SI.

2.0 BACKGROUND

This section provides a description of the Site and surrounding properties, the current and historical use of the Site, the findings of the Phase I ESA, and the scope and objectives of the Phase II Site Investigation.

2.1 Site Description and Features

The Site is a Town-owned parking lot that serves Long Island Railroad's (LIRR) Huntington Station, which is located southeast of the New York Avenue/Broadway intersection. No permanent structures or buildings exist on the Site. The Site is comprised of lots 005.003, 005.005, and a portion of lot 003.000, as identified on the Town of Huntington tax map 0400-147.00-01.00. The Site area totals approximately 2.3 acres.

The parking lot is accessed from Railroad Street. The Site is developed as an asphalt parking lot with vegetated areas at the perimeter of the parking area along Railroad Street and adjacent to the LIRR tracks. A footbridge, portions of which are located on the eastern side of the site, allows pedestrians to cross New York Avenue to access the train station building. Other site improvements include lampposts to provide lighting and several drainage structures (catch basins/dry wells) to collect surface run-off.

Topography of the Site slopes to the southeast. The Site is not located within the 100- or 500-year flood zones or within the boundaries of national or state wetlands. No significant surface water bodies are located within 0.25 miles of the Site.

2.2 Site History and Land Use

The Site is located in the area of Huntington known as the Columbia Terrace/Huntington Station Downtown Vicinity. Urban Renewal activities conducted as part of the 1967 General Neighborhood Renewal Plan and the 1989 Huntington Station Revitalization Plan demolished old commercial structures and realigned and extended existing roadways in an effort to redevelop and revitalize the downtown area. As part of these urban renewal efforts, the Site was developed into a parking area for LIRR commuters travelling to New York City via Huntington Station.

A gas station, taxi stand, and auto garages were formerly located in the central portion of the Site. The western portion of the Site was formerly utilized for coal storage, and the presence of hoppers and coal piles (associated with neighboring mill operations) was noted on historic maps.

2.3 Adjacent Property Land Use

Railroad Street and New York Avenue bound the Site to the north and east, respectively. The LIRR tracks are adjacent to the south of the Site, and the Huntington Community First Aid Squad office and ambulance garage abuts the Site to the west.

Additional commuter rail parking and the Huntington train station are located further south and west across the railroad tracks and New York Avenue. Public housing is located to the north across Railroad Street and Town House Road. Mixed-use properties consisting of residences, automotive repair businesses, and a sawmill are located further to the west.

Historical uses at adjacent properties include a former tank farm/oil company, a junk yard, and a sub-station and transfer yard, as well as the LIRR railroad right-of-way.

2.4 Phase I Environmental Site Assessment

EES JV completed a Phase I ESA in March 2014 to assess environmental conditions at the Site and vicinity and identify Recognized Environmental Conditions (RECs) associated with the potential release(s) of petroleum products (PP) or hazardous materials (HM) in conformance with American Society for Testing and Materials (ASTM) E1527-05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". RECs are defined in ASTM Standard Practice E1527-05 as:

"The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of future release to the environment. De minimis conditions are not recognized environmental conditions."

EES JV identified the following RECs during the Phase I ESA:

- Historical evidence of USTs associated with former Site operations with no records of proper UST removal, closure, or abandonment on file.
- Historical use of the Site as a taxi stand, car dealership, and gasoline station.
- Historical coal stockpiling on the Site.

After completion of the Phase I ESA, EES JV prepared a site-specific Sampling Analysis and Monitoring Plan (SAMP) to describe the field data collection plan designed to evaluate whether the RECs identified above have resulted in a release of contaminants to the environment. EES JV's SAMP, which serves as the work plan for Phase II activities, was reviewed and approved by EPA in June 2014.

EES JV divided the Site into four areas of concern (AOCs) based on each of the RECs identified. AOCs are defined as follows:

- AOC-1 is the former coal storage portion of the Site and includes the locations of historical coal hoppers, bins, and piles.
- AOC-2 includes historical locations of USTs associated with the former gas station and other Site operations.
- AOC-3 includes historical locations of the gasoline filling station, auto garages, and taxi stand buildings, where automobile maintenance, repair, and storage were likely to have occurred.
- AOC-4 includes the southeast portion of the Site that is adjacent to historical off-site conditions including bulk fuel storage, a junkyard, the railroad ROW, and a substation/transfer yard.

A Site plan that depicts locations of the AOCs is included as Figure 2.

2.5 Project Objectives

The objective of the TBA was to collect environmental data to investigate whether the RECs identified during the Phase I ESA have resulted in a release of contaminants to the environment and, if a release has occurred, evaluate whether contaminant levels warrant additional investigation or environmental remediation prior to redevelopment.

The Town of Huntington is performing this environmental assessment to satisfy due diligence requirements prior to redevelopment of the Site. The redevelopment being contemplated for the Site includes the construction of a boutique-type hotel.

2.6 Applicable Standards, Criteria, and Guidance

The evaluation of environmental sampling data and the need for remedial actions is driven by the current and intended future use of the property. State and County environmental agencies have

developed standards against which sampling data can be compared to determine if environmental conditions are suitable for a range of intended reuse scenarios. EES JV compared soil sampling data collected during the TBA to the following Standards, Criteria, and Guidance (SCGs):

- New York State Department of Environmental Conservation (NYSDEC) “Restricted Residential” Remedial Program Soil Cleanup Objectives (Subpart 375-6); and
- Cleanup “Action Levels” as presented in the Suffolk County Department of Health Services (SCDHS) standard operating procedure for the Administration of Article 12 of the Suffolk County Sanitary Code (Article 12~SOP 9-95), “Pumpout and Soil Cleanup Criteria”.

The NYSDEC Soil Cleanup Objectives (SCOs) for the protection of public health are contaminant-specific concentration thresholds which have been developed to provide a benchmark to aid in the evaluation of whether remediation is warranted to protect public health, groundwater, and ecological resources given the intended use of a site. The “restricted residential” use category is intended for land where residential use is contemplated, but when there is common ownership or a single owner/managing entity. Restrictions included in this scenario include a prohibition on vegetable gardens, single family housing, and active recreational uses that involve a reasonable potential for soil contact. This category was selected for the comparison against Site soil sampling data as a conservative proxy for reuse as a hotel.

The SCDHS Soil Cleanup Criteria are contaminant-specific concentration thresholds established by SCDHS to provide guidance regarding the levels of contamination that require the implementation of remedial actions. Soil analytical data collected during the TBA are compared to the “Action Levels” established by SCDHS in this document to evaluate whether contaminants levels warrant soil cleanup. Concentrations below Action Levels are assumed not to require remedial action to protect human health or the environment.

2.7 Phase II Scope of Work

In order to collect the data needed to achieve the objectives of the TBA, EES JV completed the following tasks:

- Geophysical survey to locate possible USTs, tank appurtenances, buried containers, and other subsurface anomalies; as well as to provide utility clearance for proposed boring locations.
- Advancement of soil borings to investigate subsurface conditions and collect soil samples for laboratory analysis.
- Laboratory analysis of soil samples collected during soil boring advancement.
- Results reporting (this Phase II SI Report) to present investigation findings, laboratory results as compared to applicable SCGs and Soil Cleanup Objectives (SCOs), and other conclusions and recommendations regarding environmental conditions.

Investigations at each AOC were tailored to the specific RECs identified in each area. Figure 2 depicts historical Site features of interest, the limits of each AOC, and the soil boring locations. Site inspection details and results are discussed in the following sections.

As discussed in the SAMP, groundwater was to be evaluated if encountered within the targeted depths of the soil borings. Groundwater was not encountered during the Phase II investigation; therefore monitoring well installation, development, survey, and sampling were excluded from the scope of this Phase II. According to the United States Geological Services (USGS) *Long Island Depth to Water Viewer, March-April 2006*, the depth to groundwater at the Site is approximately 160 feet below ground surface.

3.0 SITE INVESTIGATION ACTIVITIES

EES JV completed Phase II investigations in two separate mobilizations. EES JV was on-site on August 16, 2014 to oversee the geophysical survey. EES JV was on-site from August 25 to 28, 2014 to oversee drilling activities and to collect soil samples. Site investigation activities were conducted in accordance with the SAMP.

3.1 Geophysical Survey

On August 16, 2014, Nova Geophysical Services performed the geophysical survey activities. Nova performed electromagnetic (EM) and ground penetrating radar (GPR) surveys to locate and identify subsurface anomalies that might indicate the presence of USTs, buried utilities, buried containers, or other substructures present below grade within AOC-2, AOC-3, and the eastern portion of AOC-4 (as depicted on Figure 2). EM and GPR surveys were performed along with a comprehensive subsurface utility location (CSUL) survey to identify underground utilities and clear the proposed soil boring locations prior to soil boring advancement.

The geophysical survey equipment included a CUSL Pipe and Cable Locator (a magnetic detector), an EM utility locator, and a Noggin GPR unit equipped with a 250 MHz shielded antenna. A Ditch-Witch utility locator was used in areas where known utilities were clustered, as a backup to the GPR data.

Nova first screened suspected UST locations in the geophysical survey area (as depicted on Figure 2) using a magnetic detector. Nova then collected GPR profiles across the entire geophysical survey area. GPR profiles (signal variations that are indicative of voids, steel, changes in soil type, etc.) were analyzed in real time for reflections that indicate major anomalies and substructures. Subsurface anomalies were marked in the field with orange marking paint and recorded on a Site plan for subsequent report preparation.

The results of the geophysical survey are summarized as follows:

- Nova identified scattered anomalies located throughout the Site. Based on their rates and proximity, these anomalies were deemed to be inconsistent with the presence of a UST.
- Nova identified large anomalies potentially indicating the presence of subsurface structures, but inconsistent with the signature of a USTs. These areas were indicated both on the survey map and in the on-site mark-out.
- Nova identified two large anomalies, indicated on the survey map, consistent with the signature of USTs. These locations were also consistent with the estimated locations of the tanks as indicated by the historical data reviewed during the Phase I ESA.

- Nova cleared and marked all of the proposed boring locations at the time of the survey.

Results of the geophysical survey are depicted on Figure 3, which was excerpted from NOVA's Geophysical Engineering Survey Report. This plan depicts subsurface anomalies and site structures detected by all investigation methods used in the geophysical survey. Nova's complete Geophysical Engineering Survey Report is included as Appendix A.

3.2 Soil Boring Advancement and Soil Sampling

From August 25 through August 28, Parratt-Wolff, Inc. (PW) advanced 11 soil borings at the Site. PW advanced soil borings using an Ingersoll Rand 4300 DT466 truck-mounted drill rig. This rig is capable of either advancing borings by spinning augers or by advancing casing using direct push technology.

Based on discussions with the drillers, EES JV opted to modify the drilling method and advance soil borings using the direct push capability of this drill rig. This method was selected over augers to shorten the drilling schedule, as direct push drilling requires less manipulation of drilling and sampling tooling per sampling interval. Selecting direct push drilling over augers had no effect on data quality or the objectives of the Phase II investigation.

EES JV completed soil sample classification and logging, field screening, and analytical soil sample collection during soil boring advancement. Soil samples were collected from continuous depth intervals during soil boring advancement using 4-foot dedicated sampling sleeves. EES JV recorded field screening results and geologic observations on boring log forms, which are provided in Appendix B.

EES JV classified soils using the modified Burmeister scale. The following is a summary of geological observations made during the drilling program:

- Overburden soils consist of sand with varying amounts of gravel in soil borings B-1 through B-8. Stratifications visible in deeper samples may be indicative of stream deposition for these materials.

- Identical materials were identified in borings B-9 through B-11; however, trace amounts of coal and brick fragments, coupled with coal ash, were noted in deeper depths at these locations (between 16 and 20 feet). B-11, the deepest boring advanced at the Site, was extended to 24 feet. All other borings were terminated at 20 feet.

The presence of fill materials, although limited, suggests that historical Site operations may have resulted in the disturbance of soils at depths up to 20 feet below the current ground surface. In soil borings where fill materials were identified, exploration depths were extended until evidence of fill was no longer observed in the soil samples. It should also be noted that soil borings were advanced to depths greater than on-site dry well structures in order to advance through fill materials into natural soils.

Although evidence of fill materials were not identified in borings B-1 through B-8, it is possible that materials encountered in these borings are also fill materials, as fill was encountered at depth in other area borings. Soil types were uniform throughout the site aside from the limited fill content identified in B-9 through B-11. It is also possible that localized filling occurred only in the area of the B-9 through B-11 borings. EES JV did not encounter bedrock or groundwater within the any of the soil borings.

EES JV field screened soils using a MiniRAE 2000 photoionization detector (PID) with a 10.6 electron volt (eV) lamp. Soil headspace PID readings ranged from 0.0 to 1.5 parts per million by volume (ppm/v), with the highest levels detected in the 4 to 8 foot sample collected from soil boring B-5. PID screening values collected throughout the site were extremely low, with no strong indication of volatile organic contamination (i.e. gasoline, fuels, solvents, or other volatile chemicals) at the boring locations. Soil classification and screening results are presented on boring logs (Appendix B).

3.3 Groundwater Sampling

As stated in the SAMP, the USGS reports the depth to groundwater in the Site area as up to 160 feet bgs. Because of the depth to groundwater, EES JV did not specifically target groundwater, since soil contamination near the surface is unlikely to affect groundwater at such great depths.

Although monitoring well installation and groundwater sampling were included as contingencies in the SAMP, EES JV did not install monitoring wells or collect groundwater samples because groundwater was not encountered within the target boring depths at any of the boring locations. The target boring depths were 20 feet bgs; to the depth of “clean” soils (based on PID field screening), if positive hits were observed during field screening; or to the depth of natural soils, if fill materials were encountered.

3.4 Investigation Derived Wastes

Due to the drilling method and the fact that groundwater was not encountered during the investigation; investigation-derived wastes (IDW) were not generated during this TBA. Soil cuttings generated during drilling were used to abandon the soil borings. Drill cuttings were placed back into the soil boring from which they were generated after sample collection activities were complete.

4.0 SUMMARY OF SAMPLING RESULTS

This section provides a summary of the TBA soil sampling results. Soil analytical results are presented in Table 1. Laboratory analytical reports are included as Appendix C.

EES JV collected a total of 25 soil samples for laboratory analysis (23 field samples, 1 field duplicate sample, and 1 matrix spike/matrix spike duplicate). Soil samples consisted of one surface soil sample and one soil sample collected at depth from each soil boring. Surface soil samples were collected from the top 2 feet of the borings and deep soil samples were collected from the bottom of each boring to verify the absence of contamination at the bottom of the boring. One additional soil sample, collected from 17 to 20 feet in boring B-11, was collected to characterize ash and brick fill materials encountered at depth in boring B-11.

Soil samples were placed into appropriate sample containers, retained on ice, and shipped under chain-of-custody to Chemtech in Mountainside, New Jersey. As required by the NYSDEC Division of Environmental Remediation (DER), Chemtech is accredited pursuant to the New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) for the parameters to be analyzed.

Chemtech analyzed soil samples for the following parameters by the following methods:

- VOCs by SW-846 Method 8260B; soil extraction by SW-846 Method 5035A.
- SVOCs by SW-846 Method 8270C; soil and water extractions by SW-846 Method 3541 and 3510C, respectively.
- GRO by SW-846 Method 8015B.
- DRO by SW-846 Method 8015B.
- Pesticides by SW-846 Method 8081A/B.
- PCBs by SW-846 Method 8082A
- RCRA Metals by SW-846 Methods 6010B, 7471B, and 7470A.

Soil sample results are discussed in Section 4.1 below.

4.1 Soil Analytical Results

Table 1 provides a summary of analytical results for soil samples collected during the TBA. Several VOCs, pesticides, and heavy metals were detected at low levels, but below the NYSDEC restricted residential SCOs and the SCDHS Action Levels. Diesel range organics (DRO) and gasoline range organics (GRO) were detected in soil samples, but at concentrations well below the SCDHS threshold of 500 ppm (TPH). PCBs were not detected in any of the samples.

Four polycyclic aromatic hydrocarbons (PAHs), which are SVOC compounds, were detected in deep soil samples at concentrations exceeding the NYSDEC restricted residential SCOs but not the SCDHS Action Levels:

- benzo(a)anthracene, benzon(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene in a soil sample collected from B-11 (17-20 feet); and
- benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene in a soil sample collected from B-11 (20-24 feet).

The detection of PAH compounds is consistent with the observation of fill materials containing coal fragments and coal ash. These materials were noted in soil samples collected from B-11 from the 17 to 20 and 20 to 24 foot depth intervals (Appendix B).

4.2 Data Validation

EES JV performed a Stage I/Ia data review in accordance with the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review, (June 2008) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, (January 2010) on the soil organic and inorganic analytical data. A summary memorandum is included as Appendix D. Data quality exceptions are summarized in the summary memorandum; however, the review concluded that the analytical data collected during the TBA are of sufficient quality to support the objectives of the project.

5.0 LIMITATIONS AND CONDITIONS

The Site Investigation is based on the conditions existing at the subject site on the dates of site visits and field investigation activities. Past conditions are considered on the basis of readily available records, interviews, and recollections. Site conditions are subject to variations and changes over time. This report is based on the current fully implemented environmental regulations. Future regulatory modifications, agency interpretations, and/or attitude changes may affect the environmental status of the Site.

6.0 SUMMARY AND CONCLUSIONS

EES JV completed a Phase I ESA in March 2014 to assess environmental conditions at the Site. Although EES JV did not identify any evidence of a release of contaminants to the environment, EES JV identified the following RECs associated with historical Site operations:

- Historical use of USTs associated with former operations, with no records or unavailable records of proper UST removal, closure, or abandonment on file.
- Historical use of the Site as a taxi stand, car dealership, and gasoline station.

- Historical coal stockpiling on the Site.

EES JV performed a surface geophysical survey and collected soil samples to evaluate whether the RECs identified above have resulted in a release of contaminants to the environment and, if a release has occurred, evaluate whether contaminant levels warrant additional investigation or environmental remediation prior to redevelopment. Investigation activities, including analytical testing and targeted boring depths, were tailored specifically to address each REC. Neither bedrock nor groundwater was encountered at any boring within the targeted boring depths.

EES JV offers the following conclusions to this Phase II investigation:

- A geophysical survey performed over the eastern half of the Site identified anomalies consistent with the signature of USTs. These anomalies were detected in AOC-2, in areas consistent with historical UST locations identified during the Phase I ESA. See Figure 3 for a depiction of the suspected UST locations. It is possible that several USTs, formerly associated with gasoline station operations, are still present on the eastern portion of the parking lot area along New York Avenue. It is also possible that a fuel oil UST, associated with former site activities, is present at the northern portion of the Site (near the flag pole) along Railroad Street. Soil samples collected from borings advanced immediately adjacent to these potential tank locations did not contain evidence to suggest that contaminants have been released to the environment.
- The geophysical survey also identified three other large anomalies that are not believed to be USTs, but may be underground structures that could inhibit excavation activities during redevelopment.
- Eleven soil borings were advanced using a direct push sampler to a maximum depth of 24 feet bgs. Overburden soils consists of sand with varying amounts of gravel. Fill related materials were noted in borings advanced in the southern portion of the Site (B-9, B-10, and B-11) based on the observation of coal and brick fragments in soil samples.
- Neither groundwater nor bedrock were encountered within the targeted depths of the borings. No monitoring wells were installed and no groundwater samples were collected

during this TBA. Groundwater is not likely impacted at the Site due to the depth to water (150 feet as reported by USGS) and lack of contamination detected in Site soils.

- No contaminants were detected at concentrations greater than the Action Levels published in the SCDHS SOP for the Administration of Article 12 of the Suffolk County Sanitary Code (Article 12-SOP 9-95), “Pumpout and Soil Cleanup Criteria”. TPH was detected in soil samples at concentrations less than 500 ppm.
- VOCs, pesticides, and metals were detected in soil samples below the NYSDEC SCOs for the restricted residential use scenario. PCBs were not detected in soil samples.
- Low levels of DRO were detected in all samples submitted for DRO analysis. The concentrations and distribution of DRO are not indicative of a release of petroleum product. GRO analyses were mostly non-detect, except where low levels of GRO were detected in soil samples collected from borings B-5 and B-11. Detected GRO concentrations are not indicative of a gasoline release.
- PAH compounds including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene, were detected above the NYSDEC SCOs for the restricted residential use scenario in soil samples collected from B-11 at a depth of 17 to 20 and 20 to 24 feet bgs. The detection of PAHs in these samples is consistent with the observation of coal fragments and coal ash in soil samples.
- The depth of fill materials in B-11 was not delineated with the analytical data, but was delineated by geological observations made in the field. EES JV extended B-11 past the target depth of 20 feet due to the observation of coal fragments/ash at the bottom of the 17 to 20 foot depth interval. Observation of the soil sample collected from the 20 to 24 foot depth interval indicated that coal fragments/ash were observed between 20 and 21 feet, but soils at the bottom of the sampling sleeve did not contain ash material. EES JV believes the coal fragments observed between 20 and 21 feet are likely responsible for the detection of PAH in the soil sample collected from 20 to 24 feet bgs. No further soil boring advancement was performed at B-11 due to the fact that fill material was not observed at the bottom of the boring, and the vertical extent of fill material was considered to be delineated.

- The distribution of PAH contamination, and the relatively low concentrations detected, suggest they are likely present due to the historical placement of fill materials containing coal and/or coal ash and not indicative of a release of petroleum product.

7.0 RECOMMENDATIONS

Based on the evaluation of environmental data collected to date, EES JV does not recommend soil or groundwater remediation. The only contaminants detected above the NYSDEC SCOs for the restricted-residential use scenario in soil samples collected during the TBA are PAHs, which are believed to be present as a result of the placement of fill containing coal fragments or coal ash. PAHs were detected above SCOs in two soil samples, both collected from B-11, at depths of 17 to 20 feet bgs and 20 to 24 feet bgs.

The PAHs detected in soil samples above SCOs, if left in place, are not likely to pose a significant risk to public health or the environment due to the concentration levels detected and the depth at which PAHs were encountered. Although there were four individual PAHs detected above SCOs for the restricted residential scenario, the total PAHs detected in the two samples collected from B-11 were 17.2 ppm (17 to 20 feet bgs) and 10.3 ppm (20 to 24 feet bgs), which are well below the NYSDEC guideline for soil cleanup for total PAHs of 500 ppm (DEC Policy CP-51, Section V.H). Additionally, PAHs were detected greater than 15 feet bgs, which renders them virtually inaccessible to potential receptors, and PAHs are not typically considered a threat for vapor intrusion into indoor air.

However, based on the review of soil boring logs developed during the Phase II investigation, there is the potential that soils with elevated concentrations of PAHs are present within 15 feet of the ground surface in the southern portion of the Site (B-9/B-10/B-11) due to the presence of coal fragments or coal ash in fill materials. There is also the potential that abandoned USTs and other underground structures remain on the Site. To address these issues, EES JV developed the following recommendations for consideration during property redevelopment activities. Each scenario requires some limited additional environmental assessment. The following subsections provide a summary of the recommended approach for each scenario with estimated costs to complete the recommended assessment measures.

7.1 PAH Contamination at Boring B-11

As discussed above, based on the evaluation of soil analytical data collected from the Site to date, it is reasonable to assume that no soil remediation would be required if the contaminated zone is left undisturbed; however, if excavation is planned in the southern portion of the Site, the earthwork contractor should develop a soil management plan to mitigate the potential for exposure to contaminants by workers or the public during construction activities.

Special handing and/or disposal requirements may be required if contaminated soil is disturbed during construction. Suspected PAH-contaminated soils (i.e. soils containing evidence of coal ash or coal fragments) encountered during construction should be segregated from “clean” soils and stockpiled in a manner that prevents erosion or sedimentation of soils and prevents the generation of fugitive dusts. Soil samples should be collected from the stockpiles to determine the appropriate disposition of these soils. Depending upon contaminant levels, there may be opportunities to reuse these soils on-site, or they may need to be transported to an off-site landfill for disposal.

If excavation is anticipated in the B-9/B-10/B-11 area during redevelopment activities, it may be beneficial to perform some additional assessment prior to construction to more precisely delineate the depth and lateral extent of coal ash/coal fragments in fill materials. This would help estimate the volume of soil that needs to be managed during construction, as well as determine whether off-site disposal of soils should be anticipated. One or two days of soil boring advancement and soil sampling would be sufficient to delineate the extent of fill containing coal ash/fragments. The estimated cost for additional assessment would be approximately \$10,000 to \$20,000. Disposal costs for soils would depend on contaminant levels and the volume of soil requiring off-site disposal.

7.2 Possible USTs Remaining from Historical Site Operations

It is possible that several USTs associated with former gasoline station operations are still present on the eastern portion of the parking lot area along New York Avenue. An additional anomaly located at the northern portion of the Site, near the flagpole along Railroad Street, suggests the presence of a historical fuel oil UST. Anomaly locations detected during the geophysical survey are consistent with historical tank locations identified on Sanborn maps evaluated during the

Phase I ESA. In addition, no environmental records were available to document that historical tanks formerly present at the Site were ever removed.

Additional investigations are warranted to evaluate anomalies detected during the geophysical survey. Test pitting should be performed to check for the presence of USTs, and USTs should be removed and properly disposed of should they still be present on-site.

If USTs are present, additional environmental sampling will be required during tank removal to characterize soils in the immediate vicinity of the USTs. If contamination is detected during the removal, contaminated soil may have to be removed, transported, and disposed of at an appropriate receiving facility.

EES JV estimates the cost for the UST assessment activities would range from \$4,000 to \$8,000. UST removal, if required, would range from \$8,000 to \$15,000 per tank, assuming no contaminated soil is encountered during the removal. If residual contamination is encountered, soil remediation activities could range from \$20,000 to \$60,000. Based on the evaluation of soil analytical data collected from locations adjacent to the presumed tank locations, it is reasonable to assume that the contaminated soil removal effort would be limited.

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Table 1
Soil Analytical Results
Huntington Station TBA
Huntington, New York
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SAMPLE LOCATION	B-1		B-2		B-3		B-4		B-5		B-6		B-7		B-8		B-9		B-10		B-11					
SAMPLE DEPTH (ft bgs)	0 - 2	4 - 6	0 - 2	4 - 6	0 - 2	18 - 20	0 - 2	16 - 18	0 - 2	16 - 20	0 - 2	18 - 20	0 - 2	18 - 20	0 - 2	18 - 20	0 - 2	16 - 20	0 - 2	16 - 20	0 - 2	17 - 20	0 - 2	20 - 24		
SAMPLE DATE	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14		
QC IDENTIFIER																			DUPPLICATE	DUPPLICATE						
	NYSDEC RR ¹	SCDHS ²																								
Volatile Organic Compounds (ug/kg)																										
1,1,1,2-Tetrachloroethane	--	600	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
1,1,1-Trichloroethane	100000	1400	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
1,1,2,2-Tetrachloroethane	--	800	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	--	12000	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
1,1-Dichloroethane	--	200	NA	NA	NA	NA	0.94 U	0.85 U	0.83 U	0.75 U	0.99 U	0.84 U	0.89 U	1 U	0.79 U	0.83 U	0.77 U	0.79 U	0.78 U	0.77 U	0.81 UJ	0.84 UJ	0.87 U	0.85 U	0.96 U	0.79 U
1,1-Dichloroethene	26000	600	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
1,1-Dichloroethene	100000	600	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
1,1-Dichloropropene	--	200	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
1,2,3-Trichlorobenzene	--	17000	NA	NA	NA	NA	0.94 UJ	0.85 UJ	0.83 UJ	0.75 U	0.99 U	0.84 UJ	0.89 UJ	1 UJ	0.79 UJ	0.83 UJ	0.77 UJ	0.79 U	0.78 U	0.77 U	0.81 UJ	0.84 UJ	0.87 UJ	0.85 UJ	0.96 UJ	0.79 UJ
1,2,3-Trichloropropane	--	100	NA	NA	NA	NA	1.4 UJ	1.3 U	1.2 U	1.1 U	1.5 U	1.3 U	1.5 UJ	1.2 U	1.2 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.4 UJ	1.2 UJ						
1,2,4-Trichlorobenzene	--	17000	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 UJ	0.39 UJ	0.41 UJ	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
1,2,4-Trimethylbenzene	52000	7200	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
1,2-Dibromo-3-chloropropane	--	100	NA	NA	NA	NA	4.7 UJ	4.2 U	4.2 U	3.8 U	5 U	4.2 U	4.5 U	5 U	3.9 U	4.1 U	3.8 U	3.9 U	3.9 U	4 U	4.2 UJ	4.3 UJ	4.3 UJ	4.2 UJ	4.8 UJ	4 UJ
1,2-Dibromoethane	--	600	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 U	0.4 UJ	
1,2-Dichlorobenzene	100000	2200	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
1,2-Dichloroethane	3100	100	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
1,2-Dichloropropane	--	100	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 U	0.4 UJ	
1,3,5-Trimethylbenzene	52000	16800	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
1,3-Dichlorobenzene	49000	4800	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 U	0.4 UJ	
1,3-Dichloropropane	--	600	NA	NA	NA	NA	0.47 U	0.42 U	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 U	0.4 UJ	
1,4-Dichlorobenzene	13000	3600	NA	NA	NA	NA	0.47 UJ	0.42 U	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
2,2-Dichloropropane	--	600	NA	NA	NA	NA	0.47 U	0.42 U																		

Table 1
Soil Analytical Results
Huntington Station TBA
Huntington, New York
Page 2 of 4

SAMPLE LOCATION		B-1		B-2		B-3		B-4		B-5		B-6		B-7		B-8		B-9		B-10		B-11				
SAMPLE DEPTH (ft bgs)		0 - 2	4 - 6	0 - 2	4 - 6	0 - 2	18 - 20	0 - 2	16 - 18	0 - 2	16 - 20	0 - 2	18 - 20	0 - 2	18 - 20	0 - 2	18 - 20	0 - 2	16 - 20	0 - 2	16 - 20	0 - 2	17 - 20	0 - 2	20 - 24	
SAMPLE DATE		08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/26/14	08/26/14	08/26/14	08/26/14	
QC IDENTIFIER																				DUPPLICATE	DUPPLICATE					
	NYSDEC RR ¹	SCDHS ²																								
Volatile Organic Compounds (ug/kg) (cont.)																										
Isopropylbenzene	--	9400	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
m,p-Xylene	--	3200	NA	NA	NA	NA	0.94 U	0.85 U	0.83 U	0.75 U	0.99 U	0.84 U	0.89 U	1 U	0.79 U	0.83 U	0.77 U	0.79 U	0.78 U	0.77 U	0.81 UJ	0.84 UJ	0.87 U	0.85 U	0.96 U	0.79 U
Methyl acetate	--	--	NA	NA	NA	NA	3 J	0.85 U	0.83 U	0.75 U	0.99 U	0.84 U	0.89 U	1 U	0.79 U	0.83 U	0.77 U	0.79 U	0.78 U	0.77 U	0.81 U	0.84 U	0.87 U	1.8 J	0.96 U	0.79 U
Methyl tert-butyl ether	100000	200	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
Methylcyclohexane	--	--	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 U	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
Methylene chloride	100000	100	NA	NA	NA	NA	13.4	1.1 J	6.7	6.6	5.2	1.5 J	9.8	1.4 J	1.7 J	7.8	10	6	7.6	11.7	10.6	10	9.8	11.1	11.5	
Naphthalene	100000	24000	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 UJ	0.39 UJ	0.41 UJ	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
n-Butylbenzene	100000	12000	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
n-Propylbenzene	100000	8000	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
o-Xylene	--	3200	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
sec-Butylbenzene	100000	12000	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
Styrene	--	9200	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
tert-Butylbenzene	100000	12000	NA	NA	NA	NA	0.47 UJ	0.42 UJ	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 UJ	0.42 UJ	0.48 UJ	0.4 UJ	
Tetrachloroethene	19000	2600	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
Toluene	100000	3000	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
trans-1,2-Dichloroethene	100000	400	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
trans-1,3-Dichloropropene	--	100	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
Trichloroethene	21000	1000	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 U	0.43 U	0.42 U	0.48 U	0.4 U	
Trichlorofluoromethane	--	1600	NA	NA	NA	NA	2.3 UJ	2.1 UJ	2.1 UJ	1.9 U	2.5 U	2.1 UJ	2.5 UU	2 UJ	2.1 UJ	1.9 U	2 U	1.9 U	2 U	2.1 U	2.2 U	2.1 UJ	2.4 UU	2 UJ	2 UU	
Vinyl acetate	--	600	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
Vinyl chloride	900	100	NA	NA	NA	NA	0.47 U	0.42 U	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.39 U	0.41 U	0.38 U	0.39 U	0.39 U	0.4 UJ	0.42 UJ	0.43 U	0.42 U	0.48 U	0.4 U	
Semi-volatile Organic Compounds (ug/kg)																										
1,1'-Biphenyl	--	--	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U												

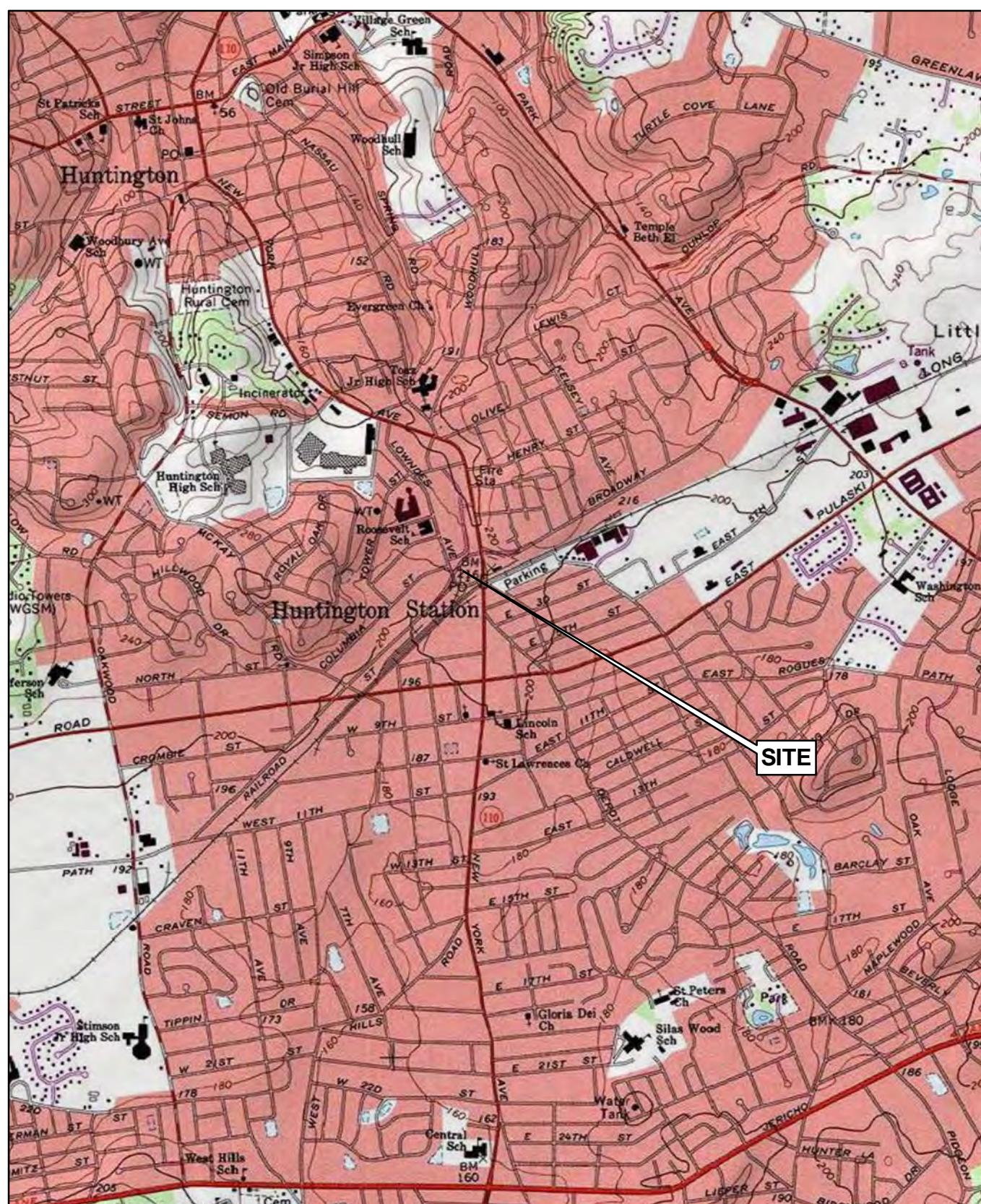
Table 1
Soil Analytical Results
Huntington Station TBA
Huntington, New York
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SAMPLE LOCATION		B-1		B-2		B-3		B-4		B-5		B-6		B-7		B-8		B-9		B-10		B-11				
SAMPLE DEPTH (ft bgs)		0 - 2	4 - 6	0 - 2	4 - 6	0 - 2	18 - 20	0 - 2	16 - 18	0 - 2	16 - 20	0 - 2	18 - 20	0 - 2	18 - 20	0 - 2	18 - 20	0 - 2	16 - 20	0 - 2	17 - 20	0 - 2	20 - 24			
SAMPLE DATE		08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/26/14	08/26/14			
QC IDENTIFIER																			DUPPLICATE	DUPPLICATE						
	NYSDEC RR ¹	SCDHS ²																								
Semi-volatile Organic Compounds (ug/kg)																										
Benzaldehyde	--	--	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	35.7 U	72 U	69.6 U
Benzo(a)anthracene	1000	2000	35.2 UJ	73.5 U	35.3 UJ	75 J	35.4 UJ	34.8 UJ	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	34.6 UJ	34.9 UJ	36 UJ	34.2 U	35.3 U	34.8 U	110 J	35.9 UJ	35.4 U	270 J	1500	990
Benzo(a)pyrene	1000	44000	35.2 U	73.5 U	35.3 U	81.3 J	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U	36 U	34.2 U	35.3 U	34.8 U	110 J	73.7 J	35.4 U	420 J	2100	1100
Benzo(b)fluoranthene	1000	3400	35.2 U	73.5 U	35.3 U	89.7 J	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U	36 UJ	34.2 U	35.3 U	34.8 U	180 J	130 J	35.4 U	510 J	2500	1500
Benzo(g,h,i)perylene	100000	200000	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U	36 U	34.2 U	35.3 U	34.8 U	96.4 J	35.9 U	35.4 U	310 J	1600	750
Benzo(k)fluoranthene	3900	3400	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	140 J	1000	320 J
Bis(2-chloroethoxy)methane	--	--	35.2 U	73.5 U	35.3 UJ	36.6 UJ	35.4 U	34.8 U	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	34.6 U	34.9 U	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	35.7 U	72 U	69.6 U
Bis(2-chloroethyl)ether	--	--	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	34.6 U	34.9 U	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	35.7 U	72 U	69.6 U
Bis(2-ethylhexyl)phthalate	--	--	35.2 UJ	73.5 U	35.3 UJ	110 J	88.9 J	180 J	69.8 UJ	310 J	70.5 UJ	34.7 UJ	34.4 UJ	69 U	34.6 UJ	190 J	36 UJ	140 J	170 J	150 J	36.1 U	35.9 UJ	180 J	110 J	72 U	69.6 U
Butylbenzylphthalate	--	--	35.2 UJ	73.5 U	35.3 UJ	36.6 UJ	35.4 UJ	34.8 UJ	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	34.6 UJ	34.9 UJ	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 UJ	35.4 U	35.7 UJ	72 U	69.6 U
Caprolactam	--	--	70.4 U	150 U	70.6 U	73.2 U	70.8 U	69.7 U	140 U	68.7 U	140 U	69.5 U	68.9 U	140 U	69.2 U	69.7 U	71.9 U	68.4 U	70.7 U	69.5 U	72.2 U	71.9 U	70.8 U	71.4 U	140 U	140 U
Carbazole	--	--	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	35.7 U	72 U	69.6 U
Chrysene	3900	2000	35.2 UJ	73.5 U	35.3 UJ	91.1 J	35.4 UJ	34.8 UJ	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	34.6 UJ	34.9 UJ	36 UJ	34.2 U	35.3 U	34.8 U	110 J	78.3 J	35.4 U	280 J	1500	930
Dibenz(a,h)anthracene	330	200000	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U	36 U	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	110 J	72 U	280 J
Dibenzofuran	59000	--	35.2 UJ	73.5 U	35.3 UJ	36.6 UJ	35.4 UJ	34.8 UJ	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	34.6 U	34.9 UJ	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	35.7 UJ	72 U	69.6 U
Diethylphthalate	--	--	35.2 UJ	73.5 U	35.3 UJ	36.6 UJ	35.4 UJ	34.8 UJ	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	34.6 U	34.9 UJ	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	35.7 UJ	490 J	69.6 U
Dimethylphthalate	--	--	250 J	820	290 J	150 J	98.4 J	74.5 J	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	80.3 J	77.4 J	110 J	270 J	270 J	130 J	120 J	120 J	35.7 UJ	220 J	140 J	
Di-N-Butylphthalate	--	--	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 U	35.4 U	35.7 U	72 U	69.6 U
Di-N-Octyl Phthalate	--	--	35.2 UJ	73.5 U	35.3 UJ	36.6 UJ	35.4 UJ	34.8 UJ	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	34.6 UJ	34.9 UJ	36 UJ	34.2 U	35.3 U	34.8 U	36.1 U	35.9 UJ	35.4 U	35.7 UJ	72 U	69.6 U
Fluoranthene	100000	200000	35.2 U	73.5 U	35.3 U	36.6 U	35.4 U	34.8 U	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	34.6 U	34.9 U										

Table 1
Soil Analytical Results
Huntington Station TBA
Huntington, New York
Page 4 of 4

SAMPLE LOCATION		B-1		B-2		B-3		B-4		B-5		B-6		B-7		B-8		B-9		B-10		B-11				
SAMPLE DEPTH (ft bgs)		0 - 2	4 - 6	0 - 2	4 - 6	0 - 2	18 - 20	0 - 2	16 - 18	0 - 2	16 - 20	0 - 2	18 - 20	0 - 2	18 - 20	0 - 2	18 - 20	0 - 2	16 - 20	0 - 2	16 - 20	0 - 2	17 - 20	0 - 2	20 - 24	
SAMPLE DATE		08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14	08/26/14	08/26/14		
QC IDENTIFIER																				DUPPLICATE	DUPPLICATE					
	NYSDEC RR ¹	SCDHS ²																								
Pesticides/PCBs (ug/kg) (cont.)																										
delta-BHC	100000	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Dieldrin	200	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Endosulfan I	24000	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Endosulfan II	24000	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Endosulfan Sulfate	24000	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Endrin	11000	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Endrin Aldehyde	--	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Endrin Ketone	--	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
gamma-BHC (Lindane)	1300	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
gamma-Chlordane	--	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Heptachlor	2100	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Heptachlor Epoxide	--	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Methoxychlor	--	--	NA	0.349 U	0.345 U	0.357 U	0.356 U	0.351 U	0.353 U	0.357 U	0.344 U															
Toxaphene	--	--	NA	3.5 U	3.5 U	3.6 U	3.6 U	3.5 U	3.6 U	3.6 U	3.5 U															
Metals (mg/kg)																										
Arsenic	16	30	3.09	4.08	4.18	5.59	5.13	4.35	6.17	2.37	4.63	5	3.92	2.78	5.45	3.55	3.42	1.65	3.08	1.77	3.92	5.85	2.42	6.91	8.97	5.95
Barium	400	4000	27.1 J	35.6	26.1 J	30.2 J	20.9 J	24.6 J	31.8 J	11.4 J	38.6 J	14.4 J	11.9 J	14.7 J	23.7 J	18.4 J	25.7 J	9.11 J	19.5	26.2	26.5	39.4	13.3	30.1 J	63.2 J	29.9 J
Cadmium	4.3	40	0.068 U	0.07 U	0.069 U	0.068 U	0.067 U	0.068 U	0.065 U	0.067 U	0.302	0.067 U	0.068 U	0.067 U	0.065 U	0.068 U	0.07 U	0.068 U	0.07 U	0.067 U	0.07 U	0.069 U	0.067 U	0.07 U	0.068 U	
Chromium	--	100	7.78 J	9.59	8.95 J	11 J	9.82 J	14.3 J	9.83 J	10.8 J	7.71 J	13.4 J	3.83 J	6.52 J	8.42 J	9.75 J	7.44 J	5.56 J	6.12	7.25	6.34	7.39	12	8.31 J	21 J	8.96 J
Lead	400	2000	7.42	66.1	26.8	27.6	29.2	4.77	73.9	8.02	99.4	9.68	12.5	26.1	7.51	17.4	17.8	2.23	6.09	6.57	36.5	29.9	6.02	34	39	16.9
Mercury	0.81	3.7	0.017	0.083	0.036	0.037	0.041	0.01 J	0.102	0.022	0.057	0.012	0.021	0.022	0.02	0.025	0.023	0.005 J	0.011	0.007 J	0.054	0.045	0.005 U	0.066	0.022	0.02
Selenium	180	--	0.497 J	0.747 J	0.527 J	0.943	0.653 J	0.533 J	0.533 J	0.329 J	0.304 J	0.369 J	0.385 J	0.272 J	0.658 J	0.461 J	0.686 J	0.334 J	0.234 U	0.297 J	0.789 J	1.34	0.518 J	0.547 J	0.862 J	0.717 J
Silver	180	50	0.399 J	0.533	0.574	0.778	0.511	0.492	0.611	0.294 J	0.512	0.391 J	0.297 J	0.322 J	0.56	0.39 J	0.696	0.222 J	0.372 J	0.32 J	0.446 J	0.631	0.346 J	0.508	1.01	0.653
Total Petroleum Hydrocarbons (ug/kg)																										
Diesel Range Organics	--	500,000 ³	NA	NA	NA	NA	NA	12392	2653	9003	4819	4613														

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USGS Topographic Map
Huntington, New York
Revised 1979

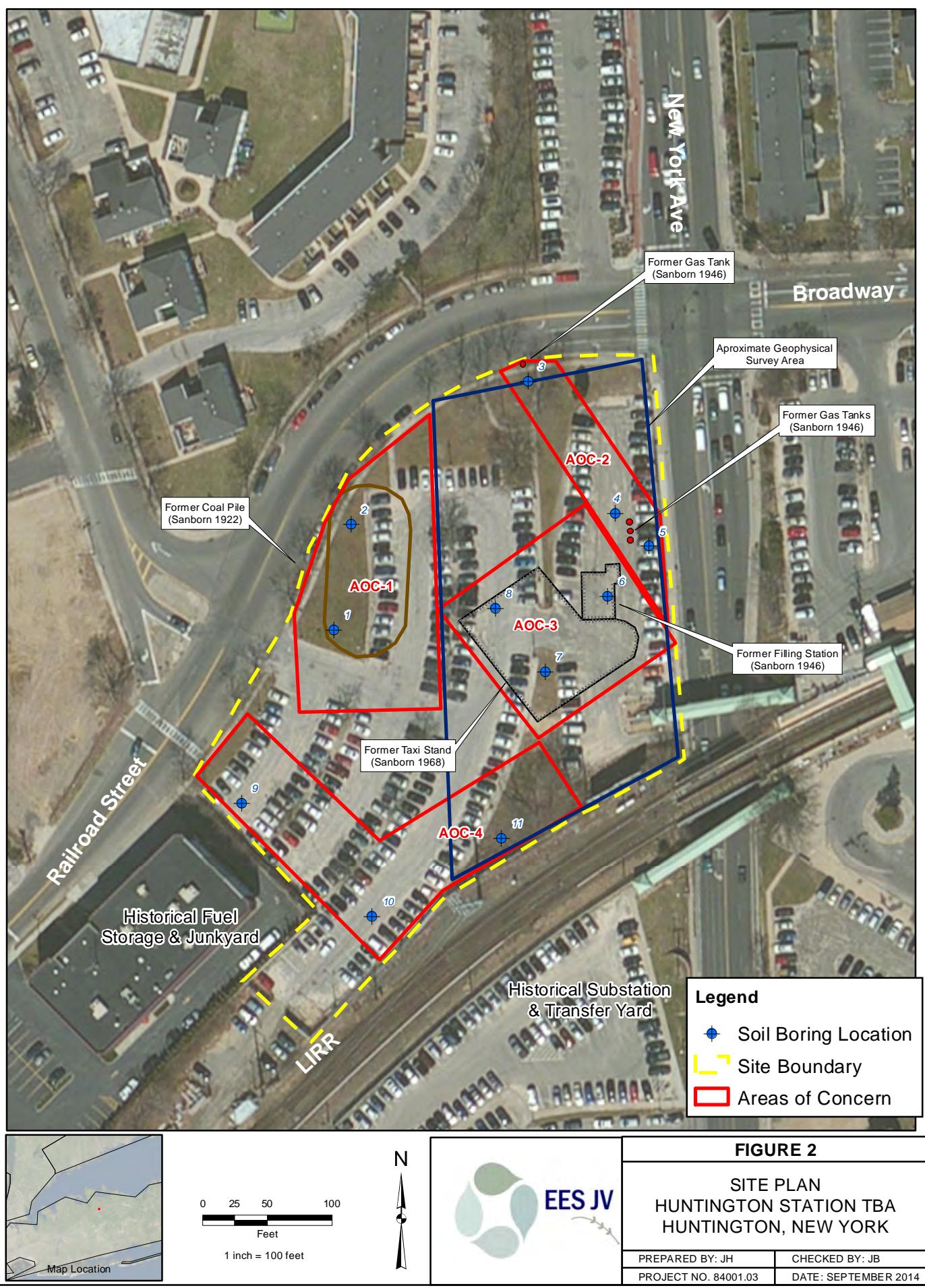
0 500 1,000 2,000
Feet
1 inch = 2,000 feet

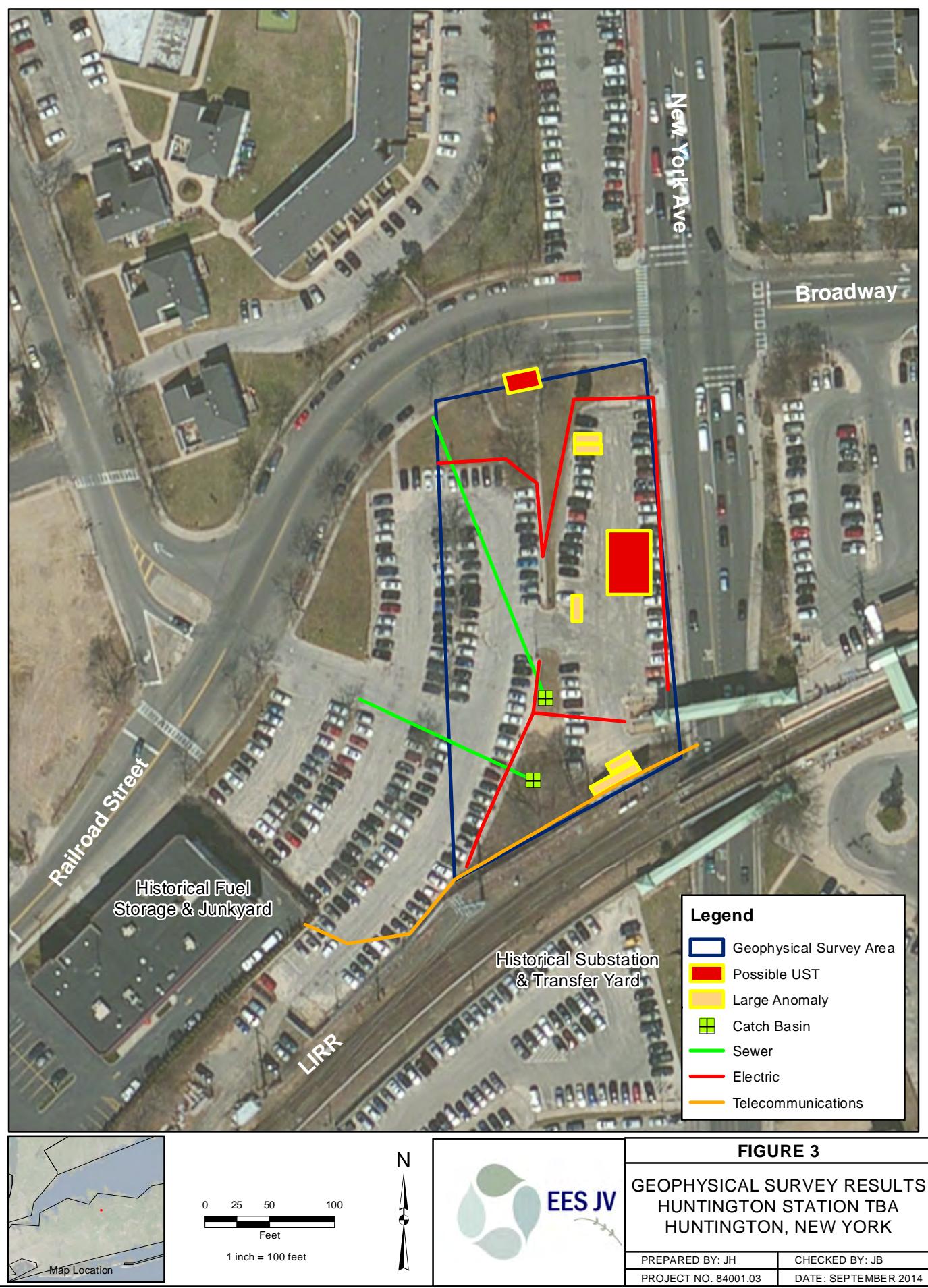


FIGURE 1

LOCUS MAP
HUNTINGTON STATION TBA
HUNTINGTON, NEW YORK

PREPARED BY: JH	CHECKED BY: JB
PROJECT NO. 84001.03	DATE: SEPTEMBER 2014





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GEOPHYSICAL ENGINEERING SURVEY REPORT

MUNICIPAL PARKING LOT @ LONG ISLAND RAIL ROAD

(LIRR) HUNTINGTON STATION

HUNTINGTON STATION, NY 11746

NOVA PROJECT NUMBER

14-0336

DATED

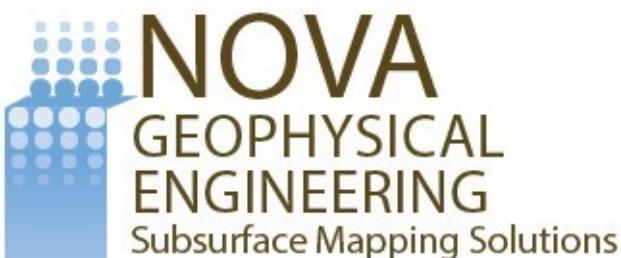
AUGUST 22, 2014

PREPARED FOR:



18 Chenell Drive
Concord, NH 0310001

PREPARED BY:



56-01 Marathon Parkway # 765
Douglaston, New York 11362
347-556-7787 (PHONE)
718-261-1527(FAX)
www.nova-gsi.com

NOVA GEOPHYSICAL SERVICES

SUBSURFACE MAPPING SOLUTIONS

56-01 Marathon Parkway, # 765, Douglaston, New York 11362
Ph. 347-556-7787 Fax. 718-261-1527
www.nova-gsi.com

August 22, 2014

Dominic A. Mattioni, Jr.
Sr. Subcontracts Administrator
NOBIS ENGINEERING, INC.
18 Chenell Drive
Concord, New NH 03301
P: 603-224-4182
E: dmattioni@nobiseng.com

Re: Geophysical Engineering Survey (GES) Report
Municipal Parking Lot-Huntington Station
Huntington, New York

Dear Mr. Mattioni:

Nova Geophysical Services (NOVA) is pleased to provide findings of the geophysical engineering survey (GES) at the above referenced project site: Municipal Parking Lot at Huntington Station, Huntington, New York (the "Site"). Please see attached Site Location and Geophysical Survey maps for more details.

INTRODUCTION TO GEOPHYSICAL ENGINEERING SURVEY (GES)

NOVA performed a Geophysical engineering surveys (GES) consisting of Ground Penetrating Radar (GPR), comprehensive subsurface utility (CSUL) surveys and Electromagnetic (EM) surveys at the project Site. The purpose of this survey is to locate and identify USTs, anomalies, utilities and other substructures and to clear and mark proposed environmental boring areas on August 16th, 2014.

The equipment selected for this investigation was a CUSL Pipe and Cable Locator (a magnetic detector), an Electromagnetic (EM) utility locator and Noggin's 250 MHz ground penetrating radar (GPR) shielded antenna.

A GPR system consists of a radar control unit, control cable and a transducer (antenna). The control unit transmits a trigger pulse at a normal repetition rate of 250 MHz. The trigger pulse is sent to the transmitter electronics in the transducer via the control cable. The transmitter electronics amplify the trigger pulses into bipolar pulses that are radiated to the surface. The transformed pulses vary in shape and frequency according to the transducer used. In the subsurface, variations of the signal occur at boundaries where there is a dielectric contrast (void, steel, soil type, etc.). Signal reflections travel back to the control unit and are represented as color graphic images for interpolation.

GEOPHYSICAL METHODS

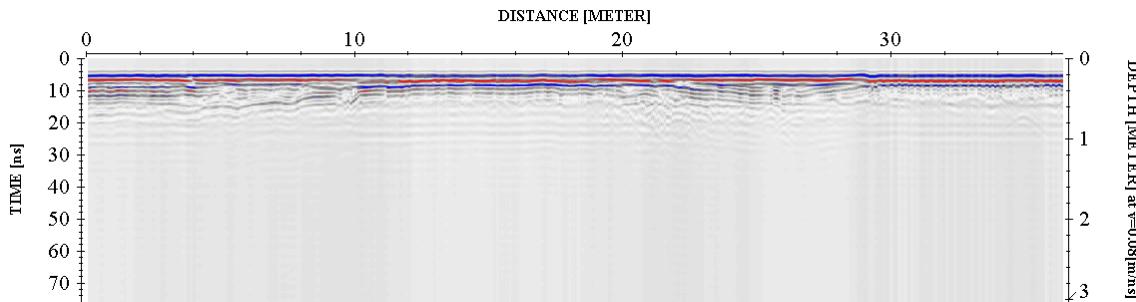
The project site was first screened using a magnetic detector to search for potential UST locations within the area of the parking lot indicated on the survey map. GPR profiles were then collected over the entire area and inspected for reflections, which could be indicative of major anomalies and substructures. A Ditch-Witch utility locator was used in areas where known utilities were clustered as a backup to the GPR data.

GPR data profiles were collected for the areas of the Site specified by the client. The surveyed areas consisted of open, paved parking lots and grassy, roadside areas.

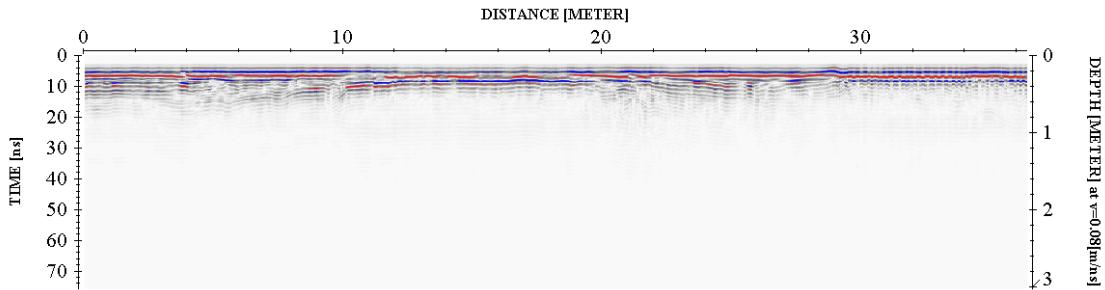
DATA PROCESSING

In order to improve the quality of the results and to better identify subsurface anomalies NOVA processed the collected data. The processes flow is briefly described at this section.

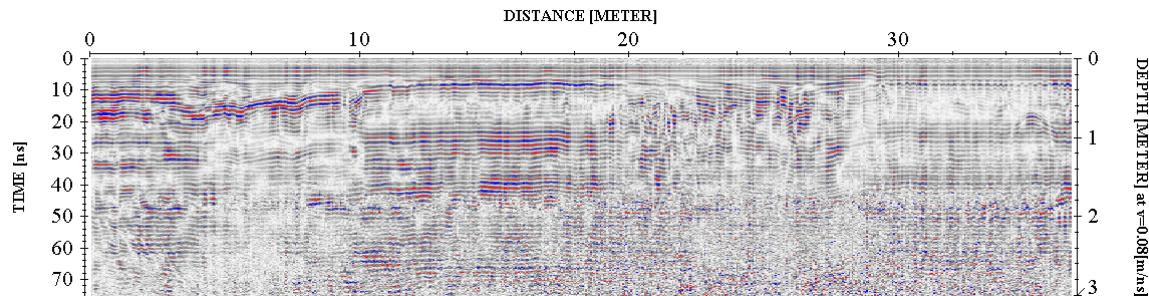
Step 1. Import raw RAMAC data to standard processing format



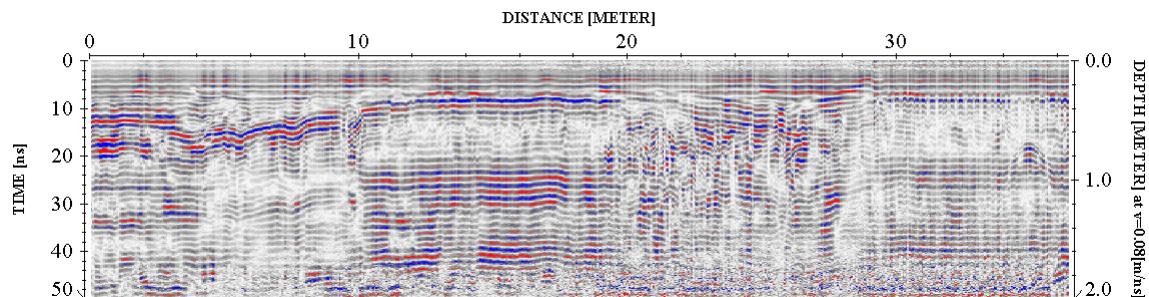
Step 2. Remove instrument noise (*dewow*)



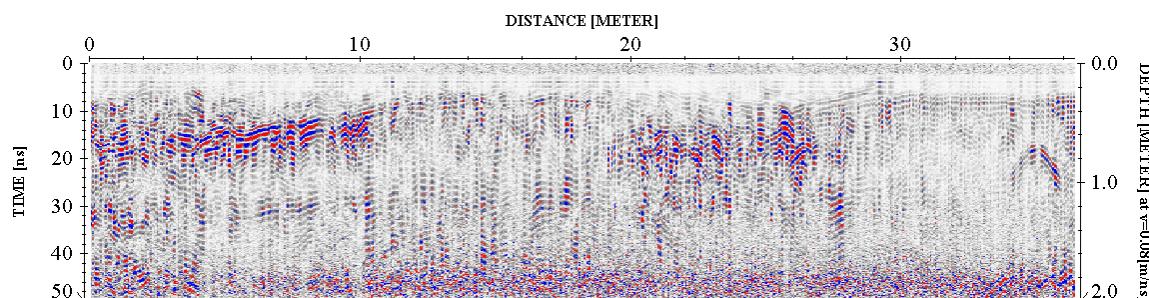
Step 3. Correct for attenuation losses (*energy decay function*)



Step 4. Remove static from bottom of profile (*time cut*)



Step 5. Mute horizontal ringing/noise (*subtracting average*)



The above example shows the significance of data processing. The last image (step 5) has higher resolution than the starting image (raw data – step 1) and describes the subsurface anomalies more accurately.



Huntington Station
Huntington, NY 11746

PHYSICAL SETTINGS

Nova observed following physical conditions at the time of the survey:

The weather: Sunny and humid.

Temp: 85 Degrees (F).

Surface: Grassy, dirt covered and paved (concrete-asphalt).

Geophysical Noise Level (GNL): Geophysical Noise Level (GNL) was medium at the site. The populated area and repeated excavation/paving/sealing of the area caused some noise.

RESULTS

The results of the geophysical engineering survey (GES) identified following at the project Site:

- GES survey identified scattered anomalies located throughout the project site. Based on their rates and proximity, these anomalies were inconsistent with any USTs.
- GES identified several locations with large anomalies potentially indicating some subsurface structures, inconsistent with what would be seen for USTs. These areas were indicated both on the survey map and in the on-site markout.
- GES identified to large anomalies, indicated on the survey map, consistent with UST's. These locations were also consistent with the estimated locations of the tanks as indicated by the historical data.
- Nova cleared and marked all of the proposed boring locations at the time of the survey.
- Geophysical Survey Plan portrays the areas investigated during the geophysical survey.

If you have any questions please do not hesitate to contact the undersigned. Sincerely,

NOVA Geophysical Services

Levent Eskicakit, P.G., E.P.
Project Engineer

Attachments:

Figure 1 Site Location Map
Geophysical Survey Plan
Geophysical Images



FIGURE 1
SITE LOCATION MAP

NOVA

Geophysical Services

Subsurface Mapping Solutions

56-01 Marathon Pkwy, # 765, Douglaston, NY11362
(347) 556-7787 Fax (718) 261-1528

www.nova-gsi.com

SITE: **Municipal Parking @Huntington Station**
Huntington, NY 11746

SCALE: See Map



1- All anomalies were marked in the field.

NOVA Geophysical Services <small>Subsurface Mapping Solutions</small> 56-01 Marathon Parkway, PO Box 765 Douglaston, New York 11362 Phone (347) 556-7787 * Fax (718) 261-1527 www.nova-gsi.com	GEOPHYSICAL SURVEY PLAN SITE : Municipal Parking Lot @ Huntington Station Huntington, NY 11746 CLIENT: Nobis Engineering, Inc. DATE: August 16, 2014 Scale See Map	INFORMATION <table border="0"> <tr> <td></td> <td>Geophysical Survey Area</td> </tr> <tr> <td></td> <td>Possible UST</td> </tr> <tr> <td></td> <td>Large Anomaly</td> </tr> <tr> <td></td> <td>Sewer</td> </tr> <tr> <td></td> <td>Telecommunications</td> </tr> <tr> <td></td> <td>Catch Basin</td> </tr> <tr> <td></td> <td>Electric</td> </tr> </table>		Geophysical Survey Area		Possible UST		Large Anomaly		Sewer		Telecommunications		Catch Basin		Electric
	Geophysical Survey Area															
	Possible UST															
	Large Anomaly															
	Sewer															
	Telecommunications															
	Catch Basin															
	Electric															

GEOPHYSICAL IMAGES

Huntington Station

Huntington, NY 11746

August 16th, 2014



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Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-01

Boring Location: Grass area at south side of AOC-1

Checked by: J. Brunelle

Date Start: August 26, 2014

Date Finish: August 26, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.: _____

Datum: _____

		Drilling Method	Sampler	Groundwater Observations					
Type	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time	
Size ID (in.)	2	2							
Advancement	Push	Push							

Depth (ft.)	SAMPLE INFORMATION				LITHOLOGY				NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)	
1	S-1	29	0-4						S-1: Brown, fine to medium SAND and Silt, little fine Gravel. dry. (SAND).
2					0				
3									
4									
5	S-2	24	4-6						S-2: Brown, fine to medium SAND and Silt, little fine Gravel. dry. (SAND).
6					0				
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-02

Boring Location: Grass area at north side of AOC-1

Checked by: J. Brunelle

Date Start: August 26, 2014

Date Finish: August 26, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler	Groundwater Observations					
Type	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
Size ID (in.)	2	2						
Advancement	Push	Push						

Depth (ft.)	SAMPLE INFORMATION				LITHOLOGY				NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)	
1	S-1	34	0-4				GRASS / 0.5		S-1: Brown, fine to medium SAND and Silt, some fine Gravel, grass observed in first 6" of sample. dry. (FILL).
2					0				
3									
4									
5	S-2	24	4-6				FILL		S-2: Black and tan, fine SAND and Silt, little fine Gravel, trace brick and coal fragments. dry. (FILL).
6					0		/ 6.0		
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-03

Boring Location: North side of AOC-3

Checked by: J. Brunelle

Date Start: August 26, 2014

Date Finish: August 26, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.:

Datum:

Type	Drilling Method	Sampler	Groundwater Observations					
Size ID (in.)	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time

Depth (ft.)	SAMPLE INFORMATION				SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)				NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY		
1	S-1	48	0-4				SAND	S-1: Brown, fine to medium SAND and Silt, some fine Gravel. dry. (SAND).	
2					0				
3									
4									
5	S-2	40	4-8					S-2: Brown, fine to medium SAND and Gravel. white and green intervals of medium Gravel. dry. (SAND AND GRAVEL).	
6					0				
7									
8									
9	S-3	48	8-12					S-3: Brown, fine to medium SAND and Gravel. (SAND AND GRAVEL).	
10					0				
11									
12									
13	S-4	48	12-16					S-4: Brown, fine to coarse SAND and Gravel, trace Silt. (SAND AND GRAVEL).	
14					0				
15									
16									
17	S-5	48	16-20					S-5: Tan/dark brown, fine to medium SAND, some Silt, some fine Gravel. (SAND).	
18					0				
19									
20							/ 20.0	Boring terminated at 20 feet.	
21									
22									
23									
24									
25									

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-04

Boring Location: Center of AOC-2, west of gas station USTs

Checked by: J. Brunelle

Date Start: August 25, 2014

Date Finish: August 25, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: J. Brunelle

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler	Groundwater Observations					
Type	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
Size ID (in.)	2	2						
Advancement	Push	Push						

Depth (ft.)	SAMPLE INFORMATION				LITHOLOGY		SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)			NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)		
1	S-1	36	0-4					0.3 ASPHALT	Asphalt. S-1A (7"): Dark brown, fine SAND and Gravel, little medium to coarse Sand. dry. (SAND). S-1B (6"): Brown, fine SAND and Gravel, little medium to coarse Sand. dry. (SAND). S-1C (19"): Tan, fine SAND and Gravel, trace medium to coarse Sand. dry. (SAND).	
2					0.8					
3										
4										
5	S-2	37	4-8						S-2: Tan, fine SAND and Gravel, trace medium to coarse Sand. dry. (SAND).	
6										
7					1.2					
8										
9	S-3	42	8-12						S-3A (21"): Tan, fine SAND and Gravel, trace medium to coarse Sand. dry. (SAND).	
10										
11					0.2				S-3B (21"): Orange/brown, fine SAND and Gravel, trace medium to coarse Sand, some Gravel in bottom 4" of sample sleeve. dry. (SAND).	
12										
13	S-4	48	12-16						S-4A (20"): Brown, fine SAND and Gravel, trace medium to coarse Sand. dry. (SAND).	
14										
15					0.2				S-4B (5"): Orange/brown, medium SAND and Gravel, some coarse Sand, rock fragments. dry. (SAND).	
16									S-4C (23"): Brown, fine SAND and Gravel, trace coarse Sand. dry. (SAND).	
17	S-5	48	16-20							
18									S-5: Brown, fine SAND and Gravel, trace medium to coarse Sand, stratified. dry. (SAND).	
19										
20								/ 20.0	Boring terminated at 20 feet.	
21										
22										
23										
24										
25										

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-05

Boring Location: South side of AOC-2, south of gas station USTs

Checked by: J. Brunelle

Date Start: August 26, 2014

Date Finish: August 26, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.:

Datum:

		Drilling Method		Sampler		Groundwater Observations							
Type		Geoprobe		Macro-Core Liners		Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time		
Size ID (in.)		2		2									
Advancement		Push		Push									
Depth (ft.)	SAMPLE INFORMATION			PID (ppm)	Ground Water	LITHOLOGY	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)						
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.		Graphic	Stratum Elev. / Depth (ft.)						
1	S-1	34	0-4				10.2 ASPHALT	Asphalt. S-1A (24"): Dark gray, fine SAND and Gravel. dry. (SAND AND GRAVEL).					
2					0			S-1B (24"): Brown, fine to medium SAND and Gravel, trace Silt. dry. (SAND AND GRAVEL).					
3								S-2: Brown, fine to medium SAND and Gravel. dry. (SAND AND GRAVEL).					
4								S-3: Brown/gray, fine to medium SAND and Gravel, trace Silt. dry. (SAND AND GRAVEL).					
5	S-2	30	4-8					S-4: Brown/gray, fine to medium SAND and Gravel, trace Silt. dry. (SAND AND GRAVEL).					
6								S-5: Brown, medium SAND and Gravel, trace Silt. dry. (SAND AND GRAVEL).					
7													
8													
9	S-3	48	8-12										
10					0								
11													
12													
13	S-4	35	12-16										
14													
15													
16													
17	S-5	33	16-20										
18													
19					0								
20							/ 20.0	Boring terminated at 20 feet.					
21													
22													
23													
24													
25													

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-06

Boring Location: East side of AOC-3, in former gas station footprint

Checked by: J. Brunelle

Date Start: August 26, 2014

Date Finish: August 26, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.:

Datum:

Type	Drilling Method	Sampler	Groundwater Observations					
Size ID (in.)	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time

Depth (ft.)	SAMPLE INFORMATION				SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)				NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY		
1	S-1	28	0-4					Asphalt. S-1: Brown, fine to medium SAND and Gravel, trace Silt. (SAND).	
2					0.6				
3									
4									
5	S-2	30	4-8					S-2: Brown, medium SAND and Gravel, trace Silt. (SAND).	
6					1.2				
7									
8									
9	S-3	36	8-12					S-3: Brown/black, fine to medium SAND and Gravel, trace Silt. (SAND).	
10					0				
11									
12									
13	S-4	48	12-16					S-4: Brown/dark brown, fine to medium SAND and Gravel, trace Silt. (SAND).	
14					0				
15									
16									
17	S-5	36	16-20					S-5: Brown, fine to medium SAND and Gravel, trace Silt. (SAND).	
18					0				
19									
20							/ 20.0	Boring terminated at 20 feet.	
21									
22									
23									
24									
25									

NOTES:



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-07

Boring Location: In grass area on south side of AOC-3, former building footprint

Checked by: J. Brunelle

Date Start: August 26, 2014

Date Finish: August 26, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.:

Datum:

Type	Drilling Method	Sampler	Groundwater Observations					
Size ID (in.)	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time

Depth (ft.)	SAMPLE INFORMATION				SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)				NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY		
1	S-1	48	0-4				TOPSOIL / 0.5	Topsoil. S-1: Brown, fine to medium SAND and Silt, some coarse Sand, little fine Gravel. (SAND).	
2					0		SAND		
3									
4									
5	S-2	36	4-8					S-2: Brown, fine to coarse SAND and Gravel, trace Silt. (SAND AND GRAVEL).	
6									
7					0				
8									
9	S-3	40	8-12					S-3: Brown, fine to medium SAND and Gravel, trace Silt. (SAND AND GRAVEL).	
10									
11					0				
12									
13	S-4	48	12-16					S-4: Brown, fine to medium SAND and Gravel, some Silt. (SAND AND GRAVEL).	
14									
15					0				
16									
17	S-5		16-20					S-5: Brown, fine to coarse SAND and Gravel, some Silt. (SAND AND GRAVEL).	
18									
19					0				
20							/ 20.0	Boring terminated at 20 feet.	
21									
22									
23									
24									
25									

NOTES:



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station
Location: Huntington, NY
Nobis Project No.: 84001.03

Boring No.: **B-08**
Boring Location: West side of AOC-3, in former building footprint
Checked by: J. Brunelle
Date Start: August 26, 2014
Date Finish: August 26, 2014

Contractor: Parratt Wolff Inc.
Driller: J. Price
Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: _____
Datum: _____

		Drilling Method	Sampler	Groundwater Observations					
Type	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time	
Size ID (in.)	2	2							
Advancement	Push	Push							

Depth (ft.)	SAMPLE INFORMATION				LITHOLOGY	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)				NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.		Ground Water	Graphic	Stratum Elev. / Depth (ft.)		
1	S-1	33	0-4					10.2 ASPHALT	Asphalt. S-1A: Brown, fine to medium SAND and Silt, some fine Gravel. (SAND).	
2								SAND / 2.0		
3								SAND AND GRAVEL / 4.0	S-1B: Brown/black, medium SAND and Gravel, some Silt. (SAND AND GRAVEL).	
4								SAND / 6.0	S-2A: Brown/black, fine to coarse SAND, some Silt. (SAND).	
5	S-2	39	4-8							
6									S-2B: Green/red/white, fine to coarse SAND and Gravel, trace Silt. (SAND AND GRAVEL).	
7										
8										
9	S-3	44	8-12						S-3: White/green/brown, fine to coarse SAND and fine Gravel, trace Silt. (SAND AND GRAVEL).	
10										
11										
12	S-4	45	12-16						S-4: Brown/black/tan, fine to coarse SAND and fine Gravel, trace Silt. (SAND AND GRAVEL).	
13										
14										
15										
16	S-5	31	16-20						S-5: Brown, fine to medium SAND and Gravel, trace Silt. (SAND AND GRAVEL).	
17										
18										
19										
20								/ 20.0	Boring terminated at 20 feet.	
21										
22										
23										
24										
25										

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-09

Boring Location: Northeast side of AOC-4

Checked by: J. Brunelle

Date Start: August 27, 2014

Date Finish: August 27, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.:

Datum:

Type	Drilling Method	Sampler	Groundwater Observations					
Size ID (in.)	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time

Depth (ft.)	SAMPLE INFORMATION				SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)				NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY		
1	S-1	36	0-4						
2					0				
3									
4									
5	S-2	12	4-8						
6					0				
7									
8									
9	S-3	25	8-12						
10					0				
11									
12									
13	S-4	29	12-16						
14					0				
15									
16									
17	S-5	44	16-20						
18					0				
19									
20						/ 20.0			
21									
22									
23									
24									
25									

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station

Location: Huntington, NY

Nobis Project No.: 84001.03

Boring No.: B-10

Boring Location: South side of AOC-4

Checked by: J. Brunelle

Date Start: August 27, 2014

Date Finish: August 27, 2014

Contractor: Parratt Wolff Inc.

Driller: J. Price

Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler	Groundwater Observations					
Type	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
Size ID (in.)	2	2						
Advancement	Push	Push						

Depth (ft.)	SAMPLE INFORMATION				LITHOLOGY				SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)		
1	S-1	30	0-4						S-1: Brown/black, fine to coarse SAND and Silt. some concrete and coal fragments. (FILL).	
2					0					
3										
4										
5	S-2	25	4-8						S-2: Brown, fine to medium SAND and Silt, some fine Gravel, trace brick and coal fragments. (FILL).	
6					0					
7										
8										
9	S-3	28	8-12						S-3: Brown/black/green, fine to medium SAND and Silt, some fine Gravel, little coal fragments. (FILL).	
10					0					
11										
12										
13	S-4	39	12-16						S-4: Brown/black, fine to medium SAND and Gravel, little Silt, little coal fragments. (FILL).	
14					0					
15										
16										
17	S-5	48	16-20						S-5: Brown, fine to medium SAND and Gravel, trace Silt, trace coal and brick fragments. (FILL).	
18					0					
19										
20					0			/ 20.0	Boring terminated at 20 feet.	
21										
22										
23										
24										
25										

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous



Engineering a Sustainable Future

BORING LOG

Project: Huntington Station
Location: Huntington, NY
Nobis Project No.: 84001.03

Boring No.: B-11
Boring Location: In grass area, northeast side of AOC-4
Checked by: J. Brunelle
Date Start: August 26, 2014
Date Finish: August 26, 2014

Contractor: Parratt Wolff Inc.
Driller: J. Price
Nobis Rep.: A. Leonido

Rig Type / Model: IR 4300 DT466
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.:
Datum:

Type	Drilling Method	Sampler	Groundwater Observations					
Size ID (in.)	Geoprobe	Macro-Core Liners	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
Advancement	Push	Push						

Depth (ft.)	SAMPLE INFORMATION				LITHOLOGY		SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	
1	S-1	24	0-4				TOPSOIL / 0.5	Topsoil. S-1A (12"): Brown, fine to medium SAND, some coarse Sand. (FILL). S-1B: Black/brown, fine to coarse SAND, some fine Gravel. (FILL).
2					0			
3								
4								
5	S-2	36	4-8					S-2: Brown/black, fine to medium SAND and Silt. some black coal cinders and brick debris. (FILL).
6								
7								
8								
9	S-3	48	8-12					S-3: Brown, fine to medium SAND, some fine Gravel, trace Silt. (FILL).
10								
11								
12	S-4	48	12-16					S-4: Brown/black, fine to coarse SAND, some fine Gravel, trace Silt. (FILL).
13								
14								
15								
16	S-5	48	16-20					S-5: Brown, fine to coarse SAND and fine Gravel, trace Silt, trace coal, trace brick fragments. (FILL).
17								
18								
19								
20	S-6	48	20-24					S-6A: Brown, fine to medium SAND and fine Gravel. trace brick and coal fragments. (FILL). S-6B: Brown, fine to medium SAND and fine Gravel.
21								
22								
23								
24							/ 24.0	Boring terminated at 24 feet.
25								

NOTES:

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

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September 30, 2014
Nobis File No. 84001.03/0135

Ms. Alison Devine
U.S. EPA Region 2
2ERRD-P SB
290 Broadway
New York, New York 10007

Re: Stage I/Ila Organic/Inorganic Data Review
Laboratory Report No.: F3758
Chemtech Consulting Group, Mountainside, New Jersey
Municipal Parking Lot, Railroad Street and New York Avenue
Huntington, New York
Remedial Action Contract (RAC) 2 No.: EP-W-11-043
Work Assignment No. 001-SION-0200, Amendment 8

VOCs, GRO, DRO: 20/Soils: F3758-1-14, 17, 22-26
SVOCs, Metals: 24/Soils: F3758-1-14, 17-26
Pesticides/PCBs: 8/Soils: F3758-7-9, 22-26

Dear Ms. Devine:

EES JV performed a Stage I/Ila data review in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, (June 2008) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, (January 2010) on the organic and inorganic analytical data for soil samples collected by EES JV at the Municipal Parking Lot Site located in Huntington, New York. The samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), gasoline range organics (GRO), diesel range organics (DRO), and metals using EPA SW-846 Methods and under the Site-Specific Sampling, Analysis, and Monitoring Plan (SAMP) (Revision 0, June 2014) requirements prepared for the site.

The data were evaluated based on the following parameters:

- * • Overall Evaluation of Data and Potential Usability Issues
 - * • Data Completeness
 - * • Preservation and Technical Holding Times
 - Calibrations (as narrated)
 - * • Blanks
 - Laboratory Control Samples
 - * • Field Duplicates
 - Matrix Spike/Matrix Spike Duplicate
 - Surrogate Compounds
 - Internal Standards
 - Serial Dilutions
 - * • Target Compound Identification
 - * • Reported Quantitation Limits
- * All criteria were met for this parameter.

NA – Not applicable.

Overall Evaluation of Data and Potential Usability Issues

The purpose of the Phase II Environmental Site Assessment (ESA) is to investigate the Recognized Environmental Conditions (RECs) at the site to determine whether contaminants are present at levels above applicable Standards, Criteria, and Guidance (SCGs). Soil data collected during the course of the ESA will be compared with applicable SCGs.

Data are of sufficient quality for the project objectives except as summarized below.

VOCs:

Results were qualified for laboratory control sample (LCS) failures, matrix spike recovery exceedances, surrogate spike recovery exceedances, internal standard failures, and continuing calibration verification standard exceedances.

Data were rejected (R) for LCS failures for acrolein, cis-1,2-dichloroethene, cyclohexane, and 2-chloroethyl vinyl ether in affected samples.

SVOCs:

Results were qualified for matrix spike recovery exceedances, surrogate spike recovery exceedances, internal standard failures, and continuing calibration verification standard exceedances.

GRO/DRO:

Results did not require qualification.

Pesticides/PCBs:

Ms. Alison Devine, USEPA
9/30/2014
Page 3

Results did not require qualification.

Metals:

Results were qualified for a serial dilution outside acceptance limits for barium and chromium.

Please contact me at (978) 703-6021 or gderuzzo@nobiseng.com should you have any questions or comments regarding this information.

Sincerely,

EES JV



Gail DeRuzzo
Lead Chemist

Tables: Data Summary Tables
Data Qualification Action Table

Enclosures: Data Review Checklist
Chains-of-Custody

DATA SUMMARY TABLE

Lab Sample ID	F3758-01	F3758-02	F3758-03	F3758-04	F3758-05	F3758-06	F3758-07	F3758-08	F3758-09	F3758-10	F3758-11	F3758-12	F3758-13	F3758-14
Field Sample ID	B-4-0002-082514	B-4-1618-082514	B-5-0002-082614	B-5-1620-082614	B-6-0002-082614	B-6-1820-082614	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-7-0002-082614	B-7-1820-082614	B-3-0002-082614	B-3-1820-082614	B-8-0002-082614
Sample Location	B-4	B-4	B-5	B-5	B-6	B-6	B-11	B-11	B-11	B-7	B-7	B-3	B-3	B-8
Sample Date	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14
Volatiles (ug/kg)														
1,1,1,2-Tetrachloroethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,1,1-Trichloroethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,1,2,2-Tetrachloroethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,1,2-Trichloroethane	0.83 U	0.75 U	0.99 U	0.84 U	0.89 U	1 U	0.85 U	0.96 U	0.79 U	0.79 U	0.83 U	0.94 U	0.85 U	0.77 U
1,1-Dichloroethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,1-Dichloroethene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,1-Dichloropropene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,2,3-Trichlorobenzene	0.83 UJ	0.75 U	0.99 U	0.84 UJ	0.89 UJ	1 UJ	0.85 UJ	0.96 UJ	0.79 UJ	0.79 UJ	0.83 UJ	0.94 UJ	0.85 UJ	0.77 U
1,2,3-Trichloropropane	1.2 UJ	1.1 U	1.5 U	1.3 U	1.3 U	1.5 UJ	1.3 UJ	1.4 UJ	1.2 UJ	1.2 U	1.2 U	1.4 UJ	1.3 U	1.2 U
1,2,4-Trichlorobenzene	0.42 UJ	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 UJ	0.41 UJ	0.47 UJ	0.42 UJ	0.38 U
1,2,4-Trimethylbenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
1,2-Dibromo-3-chloropropane	4.2 UJ	3.8 U	5 U	4.2 U	4.5 U	5 U	4.2 UJ	4.8 UJ	4 UJ	3.9 U	4.1 U	4.7 UJ	4.2 U	3.8 U
1,2-Dibromoethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,2-Dichlorobenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
1,2-Dichloroethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,2-Dichloropropane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,3,5-Trimethylbenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
1,3-Dichlorobenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
1,3-Dichloropropane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
1,4-Dichlorobenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
2,2-Dichloropropane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
2-Butanone	6.2 U	5.9 J	7.5 U	6.3 U	6.7 U	7.5 U	6.3 U	7.2 U	5.9 U	5.9 U	6.2 U	7 U	6.4 U	5.8 U
2-Chloroethyl Vinyl Ether	4.2 UJ	3.8 R	5 R	4.2 UJ	4.5 UJ	5 UJ	4.2 UJ	4.8 UJ	4 UJ	3.9 UJ	4.1 UJ	4.7 UJ	4.2 UJ	3.8 R
2-Chlorotoluene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
2-Hexanone	2.1 U	1.9 U	2.5 U	2.1 U	2.2 U	2.5 U	2.1 U	2.4 U	2 U	2 U	2.1 U	2.3 U	2.1 U	1.9 U
4-Isopropyltoluene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
4-Methyl-2-pentanone	2.1 U	1.9 U	2.5 U	2.1 U	2.2 U	2.5 U	2.1 U	2.4 U	2 U	2 U	2.1 U	2.3 U	2.1 U	1.9 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-01	F3758-02	F3758-03	F3758-04	F3758-05	F3758-06	F3758-07	F3758-08	F3758-09	F3758-10	F3758-11	F3758-12	F3758-13	F3758-14
Field Sample ID	B-4-0002-082514	B-4-1618-082514	B-5-0002-082614	B-5-1620-082614	B-6-0002-082614	B-6-1820-082614	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-7-0002-082614	B-7-1820-082614	B-3-0002-082614	B-3-1820-082614	B-8-0002-082614
Sample Location	B-4	B-4	B-5	B-5	B-6	B-6	B-11	B-11	B-11	B-7	B-7	B-3	B-3	B-8
Sample Date	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14
Acetone	37	27.8	19.5 J	23	15.4 J	31.1	56	66.6	29.8	67.9	18.7 J	120	30.4	19.5
Acrolein	20.8 R	18.9 R	24.8 R	21.1 R	22.3 R	25.1 R	21.1 R	23.9 R	19.8 R	19.7 R	20.7 R	23.5 R	21.2 R	19.2 R
Acrylonitrile	2.1 U	1.9 U	2.5 U	2.1 U	2.2 U	2.5 U	2.1 U	2.4 U	2 U	2 U	2.1 U	2.3 U	2.1 U	1.9 U
Benzene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Bromobenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
Bromochloromethane	0.42 UJ	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 UJ	0.41 UJ	0.47 UJ	0.42 UJ	0.38 U
Bromodichloromethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Bromoform	1.2 U	1.1 U	1.5 U	1.3 UJ	1.3 UJ	1.5 U	1.3 U	1.4 U	1.2 U	1.2 UJ	1.2 UJ	1.4 U	1.3 UJ	1.2 U
Bromomethane	0.83 U	0.75 U	0.99 U	0.84 U	0.89 U	1 U	0.85 U	0.96 U	0.79 U	0.79 U	0.83 U	0.94 U	0.85 U	0.77 U
Carbon disulfide	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	2.7 J	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	1.4 J	0.38 U
Carbon tetrachloride	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Chlorobenzene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Chloroethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Chloroform	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Chloromethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
cis-1,2-Dichloroethene	0.42 U	0.38 U	0.5 U	0.42 R	0.45 R	0.5 U	0.42 U	0.48 U	0.4 U	0.39 R	0.41 R	0.47 U	0.42 R	0.38 U
cis-1,3-Dichloropropene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Cyclohexane	0.42 U	0.38 U	0.5 U	0.42 R	0.45 R	0.5 U	0.42 U	0.48 U	0.4 U	0.39 R	0.41 R	0.47 U	0.42 R	0.38 U
Dibromochloromethane	0.42 U	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 U	0.42 U	0.48 U	0.4 U	0.39 UJ	0.41 UJ	0.47 U	0.42 UJ	0.38 U
Dibromomethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Dichlorodifluoromethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Diethyl ether	4.2 U	3.8 U	5 U	4.2 U	4.5 U	5 U	4.2 U	4.8 U	4 U	3.9 U	4.1 U	4.7 U	4.2 U	3.8 U
Ethylbenzene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Hexachlorobutadiene	0.42 UJ	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 UJ	0.41 UJ	0.47 UJ	0.42 UJ	0.38 U
Isopropylbenzene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
m,p-Xylene	0.83 U	0.75 U	0.99 U	0.84 U	0.89 U	1 U	0.85 U	0.96 U	0.79 U	0.79 U	0.83 U	0.94 U	0.85 U	0.77 U
Methyl acetate	0.83 U	0.75 U	0.99 U	0.84 U	0.89 U	1 U	1.8 J	0.96 U	0.79 U	0.79 U	0.83 U	3 J	0.85 U	0.77 U
Methyl tert-butyl ether	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Methylcyclohexane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Methylene chloride	6.7	6.6	7.6	5.2	1.5 J	9.8	9.8	11.1	11.5	1.4 J	1.7 J	13.4	1.1 J	7.8

DATA SUMMARY TABLE

Lab Sample ID	F3758-01	F3758-02	F3758-03	F3758-04	F3758-05	F3758-06	F3758-07	F3758-08	F3758-09	F3758-10	F3758-11	F3758-12	F3758-13	F3758-14
Field Sample ID	B-4-0002-082514	B-4-1618-082514	B-5-0002-082614	B-5-1620-082614	B-6-0002-082614	B-6-1820-082614	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-7-0002-082614	B-7-1820-082614	B-3-0002-082614	B-3-1820-082614	B-8-0002-082614
Sample Location	B-4	B-4	B-5	B-5	B-6	B-6	B-11	B-11	B-11	B-7	B-7	B-3	B-3	B-8
Sample Date	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14
Naphthalene	0.42 UJ	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 UJ	0.41 UJ	0.47 UJ	0.42 UJ	0.38 U
n-Butylbenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
n-Propylbenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
o-Xylene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
sec-Butylbenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
Styrene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
tert-Butylbenzene	0.42 UJ	0.38 U	0.5 U	0.42 U	0.45 U	0.5 UJ	0.42 UJ	0.48 UJ	0.4 UJ	0.39 U	0.41 U	0.47 UJ	0.42 U	0.38 U
Tetrachloroethene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Toluene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
trans-1,2-Dichloroethene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
trans-1,3-Dichloropropene	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Trichloroethene	0.42 U	0.38 U	0.5 U	0.42 UJ	0.45 UJ	0.5 U	0.42 U	0.48 U	0.4 U	0.39 UJ	0.41 UJ	0.47 U	0.42 UJ	0.38 U
Trichlorofluoromethane	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U
Vinyl acetate	2.1 UJ	1.9 U	2.5 U	2.1 UJ	2.2 UJ	2.5 UJ	2.1 UJ	2.4 UJ	2 UJ	2 UJ	2.1 UJ	2.3 UJ	2.1 UJ	1.9 U
Vinyl chloride	0.42 U	0.38 U	0.5 U	0.42 U	0.45 U	0.5 U	0.42 U	0.48 U	0.4 U	0.39 U	0.41 U	0.47 U	0.42 U	0.38 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-17	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-8-1820-082614	B-9-0002-082714	B-9-1620-082714	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-8	B-9	B-9	B-10	B-10	B-10
Sample Date	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
Volatiles (ug/kg)						
1,1,1,2-Tetrachloroethane	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
1,1,1-Trichloroethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
1,1,2,2-Tetrachloroethane	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
1,1,2-Trichloroethane	0.79 U	0.78 U	0.77 U	0.81 UJ	0.87 U	0.84 UJ
1,1-Dichloroethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
1,1-Dichloroethene	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
1,1-Dichloropropene	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
1,2,3-Trichlorobenzene	0.79 U	0.78 U	0.77 U	0.81 UJ	0.87 UJ	0.84 UJ
1,2,3-Trichloropropane	1.2 U	1.2 U	1.2 U	1.2 UJ	1.3 UJ	1.3 UJ
1,2,4-Trichlorobenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
1,2,4-Trimethylbenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
1,2-Dibromo-3-chloropropane	3.9 U	3.9 U	3.9 U	4 UJ	4.3 UJ	4.2 UJ
1,2-Dibromoethane	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
1,2-Dichlorobenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
1,2-Dichloroethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
1,2-Dichloropropane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
1,3,5-Trimethylbenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
1,3-Dichlorobenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
1,3-Dichloropropane	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
1,4-Dichlorobenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
2,2-Dichloropropane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
2-Butanone	5.9 U	5.8 U	5.8 U	6.1 U	6.5 U	6.3 U
2-Chloroethyl Vinyl Ether	3.9 R	3.9 R	3.9 R	4 R	4.3 R	4.2 R
2-Chlorotoluene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
2-Hexanone	2 U	1.9 U	1.9 U	2 UJ	2.2 U	2.1 UJ
4-Isopropyltoluene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
4-Methyl-2-pentanone	2 U	1.9 U	1.9 U	2 UJ	2.2 U	2.1 UJ

DATA SUMMARY TABLE

Lab Sample ID	F3758-17	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-8-1820-082614	B-9-0002-082714	B-9-1620-082714	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-8	B-9	B-9	B-10	B-10	B-10
Sample Date	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
Acetone	2 U	1.9 U	1.9 U	31.2	2.2 U	2.1 U
Acrolein	19.7 R	19.5 R	19.3 R	20.2 R	21.7 R	20.9 R
Acrylonitrile	2 U	1.9 U	1.9 U	2 U	2.2 U	2.1 U
Benzene	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Bromobenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
Bromochloromethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Bromodichloromethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Bromoform	1.2 U	1.2 U	1.2 U	1.2 UJ	1.3 U	1.3 UJ
Bromomethane	0.79 U	0.78 U	0.77 U	0.81 U	0.87 U	0.84 U
Carbon disulfide	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Carbon tetrachloride	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Chlorobenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
Chloroethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Chloroform	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Chloromethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
cis-1,2-Dichloroethene	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
cis-1,3-Dichloropropene	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Cyclohexane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Dibromochloromethane	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
Dibromomethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Dichlorodifluoromethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Diethyl ether	3.9 U	3.9 U	3.9 U	4 U	4.3 U	4.2 U
Ethylbenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
Hexachlorobutadiene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
Isopropylbenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
m,p-Xylene	0.79 U	0.78 U	0.77 U	0.81 UJ	0.87 U	0.84 UJ
Methyl acetate	0.79 U	0.78 U	0.77 U	0.81 U	0.87 U	0.84 U
Methyl tert-butyl ether	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Methylcyclohexane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Methylene chloride	10	6	7.6	11.7	10	10.6

DATA SUMMARY TABLE

Lab Sample ID	F3758-17	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-8-1820-082614	B-9-0002-082714	B-9-1620-082714	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-8	B-9	B-9	B-10	B-10	B-10
Sample Date	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
Naphthalene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
n-Butylbenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
n-Propylbenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
o-Xylene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
sec-Butylbenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
Styrene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
tert-Butylbenzene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 UJ	0.42 UJ
Tetrachloroethene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.43 U	0.42 UJ
Toluene	0.39 U	0.39 U	0.39 U	0.4 UJ	0.88 J	0.42 UJ
trans-1,2-Dichloroethene	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
trans-1,3-Dichloropropene	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Trichloroethene	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Trichlorofluoromethane	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U
Vinyl acetate	2 U	1.9 U	1.9 U	2 U	2.2 U	2.1 U
Vinyl chloride	0.39 U	0.39 U	0.39 U	0.4 U	0.43 U	0.42 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-01	F3758-02	F3758-03	F3758-04	F3758-05	F3758-06	F3758-07	F3758-08	F3758-09	F3758-10	F3758-11	F3758-12	F3758-13RE
Field Sample ID	B-4-0002-082514	B-4-1618-082514	B-5-0002-082614	B-5-1620-082614	B-6-0002-082614	B-6-1820-082614	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-7-0002-082614	B-7-1820-082614	B-3-0002-082614	B-3-1820-082614
Sample Location	B-4	B-4	B-5	B-5	B-6	B-6	B-11	B-11	B-11	B-7	B-7	B-3	B-3
Sample Date	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14
Semivolatiles (ug/kg)													
1,1'-Biphenyl	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
2,2'-Oxybis(1-chloropropane)	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
2,4,5-Trichlorophenol	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
2,4,6-Trichlorophenol	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
2,4-Dichlorophenol	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
2,4-Dimethylphenol	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
2,4-Dinitrophenol	560 UJ	270 UJ	560 UJ	280 UJ	280 U	550 U	290 UJ	580 U	560 U	280 U	280 UJ	280 UJ	280 UJ
2,4-Dinitrotoluene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
2,6-Dinitrotoluene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
2-Chloronaphthalene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
2-Chlorophenol	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
2-Methylnaphthalene	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
2-Methylphenol	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
2-Nitroaniline	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
2-Nitrophenol	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
3 & 4 Methylphenol	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
3,3'-Dichlorobenzidine	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	35.7 UJ	72 U	69.6 U	34.6 UJ	34.9 UJ	35.4 UJ	34.8 UJ
3-Nitroaniline	140 UJ	68.7 UJ	140 UJ	69.5 UJ	68.9 U	140 U	71.4 UJ	140 U	140 U	69.2 U	69.7 UJ	70.8 UJ	69.7 UJ
4,6-Dinitro-2-methylphenol	350 U	170 U	350 U	170 U	170 U	350 U	180 U	360 U	350 U	170 U	170 U	180 U	170 U
4-Bromophenyl-phenylether	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
4-Chloro-3-methylphenol	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
4-Chloroaniline	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 U	34.8 U
4-Chlorophenyl-phenylether	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
4-Nitroaniline	140 UJ	68.7 UJ	140 UJ	69.5 UJ	68.9 U	140 U	71.4 UJ	140 U	140 U	69.2 U	69.7 UJ	70.8 UJ	69.7 UJ
4-Nitrophenol	350 UJ	170 UJ	350 UJ	170 UJ	170 U	350 U	180 U	360 U	350 U	170 U	170 U	180 UJ	170 UJ
Acenaphthene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 UJ
Acenaphthylene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	230 J	790	680 J	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
Acetophenone	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Anthracene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	180 J	770	480 J	34.6 U	34.9 U	35.4 U	34.8 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-01	F3758-02	F3758-03	F3758-04	F3758-05	F3758-06	F3758-07	F3758-08	F3758-09	F3758-10	F3758-11	F3758-12	F3758-13RE
Field Sample ID	B-4-0002-082514	B-4-1618-082514	B-5-0002-082614	B-5-1620-082614	B-6-0002-082614	B-6-1820-082614	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-7-0002-082614	B-7-1820-082614	B-3-0002-082614	B-3-1820-082614
Sample Location	B-4	B-4	B-5	B-5	B-6	B-6	B-11	B-11	B-11	B-7	B-7	B-3	B-3
Sample Date	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14
Atrazine	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Benzaldehyde	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Benzo(a)anthracene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	270 J	1500	990	34.6 UJ	34.9 UJ	35.4 UJ	34.8 UJ
Benzo(a)pyrene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	420 J	2100	1100	34.6 U	34.9 U	35.4 U	34.8 U
Benzo(b)fluoranthene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	510 J	2500	1500	34.6 U	34.9 U	35.4 U	34.8 U
Benzo(g,h,i)perylene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	310 J	1600	750	34.6 U	34.9 U	35.4 U	34.8 U
Benzo(k)fluoranthene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	140 J	1000	320 J	34.6 U	34.9 U	35.4 U	34.8 U
Bis(2-chloroethoxy)methane	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Bis(2-chloroethyl)ether	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Bis(2-ethylhexyl)phthalate	69.8 UJ	310 J	70.5 UJ	34.7 UJ	34.4 UJ	69 U	110 J	72 U	69.6 U	34.6 UJ	190 J	88.9 J	180 J
Butylbenzylphthalate	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	35.7 UJ	72 U	69.6 U	34.6 UJ	34.9 UJ	35.4 UJ	34.8 UJ
Caprolactam	140 U	68.7 U	140 U	69.5 U	68.9 U	140 U	71.4 U	140 U	140 U	69.2 U	69.7 U	70.8 U	69.7 U
Carbazole	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Chrysene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	280 J	1500	930	34.6 UJ	34.9 UJ	35.4 UJ	34.8 UJ
Dibenz(a,h)anthracene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	110 J	72 U	280 J	34.6 U	34.9 U	35.4 U	34.8 U
Dibenzofuran	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
Diethylphthalate	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	490 J	69.6 U	340	34.9 UJ	35.4 UJ	34.8 UJ
Dimethylphthalate	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	130 J	69 U	35.7 UJ	220 J	140 J	80.3 J	77.4 J	98.4 J	74.5 J
Di-N-Butylphthalate	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Di-N-Octyl Phthalate	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	35.7 UJ	72 U	69.6 U	34.6 UJ	34.9 UJ	35.4 UJ	34.8 UJ
Fluoranthene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	490 J	2800	1700	34.6 U	34.9 U	35.4 U	34.8 U
Fluorene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
Hexachlorobenzene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Hexachlorobutadiene	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Hexachlorocyclopentadiene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 UJ	72 U	69.6 U	34.6 U	34.9 UJ	35.4 UJ	34.8 UJ
Hexachloroethane	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Indeno(1,2,3-cd)pyrene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	280 J	1400	700	34.6 UJ	34.9 UJ	35.4 UJ	34.8 UJ
Isophorone	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Naphthalene	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Nitrobenzene	69.8 UJ	34.3 UJ	70.5 U	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-01	F3758-02	F3758-03	F3758-04	F3758-05	F3758-06	F3758-07	F3758-08	F3758-09	F3758-10	F3758-11	F3758-12	F3758-13RE
Field Sample ID	B-4-0002-082514	B-4-1618-082514	B-5-0002-082614	B-5-1620-082614	B-6-0002-082614	B-6-1820-082614	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-7-0002-082614	B-7-1820-082614	B-3-0002-082614	B-3-1820-082614
Sample Location	B-4	B-4	B-5	B-5	B-6	B-6	B-11	B-11	B-11	B-7	B-7	B-3	B-3
Sample Date	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14
N-Nitroso-di-n-propylamine	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
N-Nitrosodiphenylamine	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Pentachlorophenol	69.8 U	34.3 UJ	70.5 U	34.7 U	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 UJ	34.9 U	35.4 U	34.8 UJ
Phenanthrene	69.8 U	34.3 U	70.5 U	34.7 U	34.4 U	69 U	120 J	730	560 J	34.6 U	34.9 U	35.4 U	34.8 U
Phenol	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 U	69 U	35.7 U	72 U	69.6 U	34.6 U	34.9 U	35.4 U	34.8 U
Pyrene	69.8 UJ	34.3 UJ	70.5 UJ	34.7 UJ	34.4 UJ	69 U	460 J	2100	1300	34.6 UJ	34.9 UJ	35.4 UJ	34.8 UJ

DATA SUMMARY TABLE

Lab Sample ID	F3758-14	F3758-17	F3758-18	F3758-19	F3758-20	F3758-21	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-8-0002-082614	B-8-1820-082614	B-2-0002-082614	B-2-0406-082614	B-1-0002-082614	B-1-0406-082614	B-9-0002-082714	B-9-1620-082714F	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-8	B-8	B-2	B-2	B-1	B-1	B-9	B-9	B-10	B-10	B-10
Sample Date	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
Semivolatiles (ug/kg)											
1,1'-Biphenyl	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
2,2'-Oxybis(1-chloropropane)	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
2,4,5-Trichlorophenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
2,4,6-Trichlorophenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
2,4-Dichlorophenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
2,4-Dimethylphenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
2,4-Dinitrophenol	290 UJ	270 U	280 UJ	290 UJ	280 UJ	590 U	280 UJ	280 U	290 U	280 U	290 U
2,4-Dinitrotoluene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
2,6-Dinitrotoluene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
2-Chloronaphthalene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
2-Chlorophenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
2-Methylnaphthalene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
2-Methylphenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
2-Nitroaniline	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
2-Nitrophenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
3 & 4 Methylphenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
3,3'-Dichlorobenzidine	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 UJ
3-Nitroaniline	71.9 UJ	68.4 U	70.6 UJ	73.2 UJ	70.4 UJ	150 U	70.7 UJ	69.5 U	72.2 U	70.8 U	71.9 U
4,6-Dinitro-2-methylphenol	180 UJ	170 U	180 U	180 U	180 U	370 U	180 U	170 U	180 U	180 U	180 U
4-Bromophenyl-phenylether	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
4-Chloro-3-methylphenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
4-Chloroaniline	36 U	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
4-Chlorophenyl-phenylether	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
4-Nitroaniline	71.9 UJ	68.4 U	70.6 UJ	73.2 UJ	70.4 UJ	150 U	70.7 UJ	69.5 U	72.2 U	70.8 U	71.9 U
4-Nitrophenol	180 UJ	170 U	180 UJ	180 UJ	180 UJ	370 U	180 UJ	170 U	180 U	180 U	180 U
Acenaphthene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
Acenaphthylene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
Acetophenone	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Anthracene	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-14	F3758-17	F3758-18	F3758-19	F3758-20	F3758-21	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-8-0002-082614	B-8-1820-082614	B-2-0002-082614	B-2-0406-082614	B-1-0002-082614	B-1-0406-082614	B-9-0002-082714	B-9-1620-082714F	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-8	B-8	B-2	B-2	B-1	B-1	B-9	B-9	B-10	B-10	B-10
Sample Date	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
Atrazine	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Benzaldehyde	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Benzo(a)anthracene	36 UJ	34.2 U	35.3 UJ	75 J	35.2 UJ	73.5 U	35.3 U	34.8 U	110 J	35.4 U	35.9 UJ
Benzo(a)pyrene	36 U	34.2 U	35.3 U	81.3 J	35.2 U	73.5 U	35.3 U	34.8 U	110 J	35.4 U	73.7 J
Benzo(b)fluoranthene	36 UJ	34.2 U	35.3 U	89.7 J	35.2 U	73.5 U	35.3 U	34.8 U	180 J	35.4 U	130 J
Benzo(g,h,i)perylene	36 U	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	96.4 J	35.4 U	35.9 U
Benzo(k)fluoranthene	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Bis(2-chloroethoxy)methane	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Bis(2-chloroethyl)ether	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Bis(2-ethylhexyl)phthalate	36 UJ	140 J	35.3 UJ	110 J	35.2 UJ	73.5 U	170 J	150 J	36.1 U	180 J	35.9 UU
Butylbenzylphthalate	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 UJ
Caprolactam	71.9 U	68.4 U	70.6 U	73.2 U	70.4 U	150 U	70.7 U	69.5 U	72.2 U	70.8 U	71.9 U
Carbazole	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Chrysene	36 UJ	34.2 U	35.3 UJ	91.1 J	35.2 UJ	73.5 U	35.3 U	34.8 U	110 J	35.4 U	78.3 J
Dibenz(a,h)anthracene	36 U	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Dibenzofuran	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
Diethylphthalate	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
Dimethylphthalate	110 J	270 J	290 J	150 J	250 J	820	270 J	130 J	120 J	120 J	120 J
Di-N-Butylphthalate	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Di-N-Octyl Phthalate	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 UJ
Fluoranthene	36 U	34.2 U	35.3 U	180 J	35.2 U	73.5 U	35.3 U	34.8 U	110 J	35.4 U	35.9 U
Fluorene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
Hexachlorobenzene	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Hexachlorobutadiene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Hexachlorocyclopentadiene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 UJ	73.5 U	35.3 UJ	34.8 U	36.1 U	35.4 U	35.9 U
Hexachloroethane	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Indeno(1,2,3-cd)pyrene	36 UJ	34.2 UJ	35.3 UJ	36.6 UJ	35.2 UJ	73.5 UJ	35.3 UJ	34.8 UJ	83 J	35.4 UJ	35.9 UJ
Isophorone	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Naphthalene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Nitrobenzene	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-14	F3758-17	F3758-18	F3758-19	F3758-20	F3758-21	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-8-0002-082614	B-8-1820-082614	B-2-0002-082614	B-2-0406-082614	B-1-0002-082614	B-1-0406-082614	B-9-0002-082714	B-9-1620-082714F	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-8	B-8	B-2	B-2	B-1	B-1	B-9	B-9	B-10	B-10	B-10
Sample Date	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
N-Nitroso-di-n-propylamine	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
N-Nitrosodiphenylamine	36 UJ	34.2 U	35.3 U	36.6 U	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Pentachlorophenol	36 U	34.2 UJ	35.3 U	36.6 U	35.2 UJ	73.5 U	35.3 UJ	34.8 UJ	36.1 UJ	35.4 UJ	35.9 UJ
Phenanthrene	36 U	34.2 U	35.3 U	91.5 J	35.2 U	73.5 U	35.3 U	34.8 U	85.2 J	35.4 U	35.9 U
Phenol	36 UJ	34.2 U	35.3 UJ	36.6 UJ	35.2 U	73.5 U	35.3 U	34.8 U	36.1 U	35.4 U	35.9 U
Pyrene	36 UJ	34.2 U	35.3 UJ	150 J	35.2 UJ	73.5 U	35.3 U	34.8 U	110 J	35.4 U	72.6 J

DATA SUMMARY TABLE

Lab Sample ID	F3758-07	F3758-08	F3758-09	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-9-0002-082714	B-9-1620-082714	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-11	B-11	B-11	B-9	B-9	B-10	B-10	B-10
Sample Date	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
Pesticides/PCBs (ug/kg)								
4,4'-DDD	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
4,4'-DDE	5.6	0.357 U	0.344 U	2.4	0.345 U	0.357 U	0.351 U	0.356 U
4,4'-DDT	6.6	0.357 U	0.344 U	2.7	0.345 U	0.357 U	0.351 U	0.356 U
Aldrin	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
alpha-BHC	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Alpha-Chlordane	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Aroclor 1016	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
Aroclor 1221	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
Aroclor 1232	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
Aroclor 1242	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
Aroclor 1248	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
Aroclor 1254	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
Aroclor 1260	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
Aroclor 1262	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
Aroclor 1268	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U
beta-BHC	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
delta-BHC	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Dieldrin	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Endosulfan I	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Endosulfan II	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Endosulfan Sulfate	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Endrin	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Endrin Aldehyde	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Endrin Ketone	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
gamma-BHC (Lindane)	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
gamma-Chlordane	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Heptachlor	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Heptachlor Epoxide	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Methoxychlor	0.353 U	0.357 U	0.344 U	0.349 U	0.345 U	0.357 U	0.351 U	0.356 U
Toxaphene	3.6 U	3.6 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-01	F3758-02	F3758-03	F3758-04	F3758-05	F3758-06	F3758-07	F3758-08	F3758-09	F3758-10	F3758-11	F3758-12	F3758-13	F3758-14	F3758-17
Field Sample ID	B-4-0002-082514	B-4-1618-082514	B-5-0002-082614	B-5-1620-082614	B-6-0002-082614	B-6-1820-082614	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-7-0002-082614	B-7-1820-082614	B-3-0002-082614	B-3-1820-082614	B-8-0002-082614	B-8-1820-082614
Sample Location	B-4	B-4	B-5	B-5	B-6	B-6	B-11	B-11	B-11	B-7	B-7	B-3	B-3	B-8	B-8
Sample Date	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14
Petroleum Hydrocarbons (ug/kg)															
Diesel Range Organics	9003	4819	4613	3229	4889	4286	14773	59309	17201	4300	19219	12392	2653	2875	2185
Gasoline Range Organics	18 U	17 U	71	19 U	17 U	18 U	33 J	17 U	20 U	20 J	25 J	19 U	15 J	20 U	18 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-9-0002-082714	B-9-1620-082714	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-9	B-9	B-10	B-10	B-10
Sample Date	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
Petroleum Hydrocarbons (ug/kg)					
Diesel Range Organics	2578	2920	6318	4076	5491
Gasoline Range Organics	21 U	19 U	18 U	19 U	20 U

DATA SUMMARY TABLE

Lab Sample ID	F3758-01	F3758-02	F3758-03	F3758-04	F3758-05	F3758-06	F3758-07	F3758-08	F3758-09	F3758-10	F3758-11	F3758-12
Field Sample ID	B-4-0002-082514	B-4-1618-082514	B-5-0002-082614	B-5-1620-082614	B-6-0002-082614	B-6-1820-082614	B-11-0002-082614	B-11-1720-082614	B-11-2024-082614	B-7-0002-082614	B-7-1820-082614	B-3-0002-082614
Sample Location	B-4	B-4	B-5	B-5	B-6	B-6	B-11	B-11	B-11	B-7	B-7	B-3
Sample Date	08/25/14	08/25/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14
Metals (mg/kg)												
Arsenic	6.17	2.37	4.63	5	3.92	2.78	6.91	8.97	5.95	5.45	3.55	5.13
Barium	31.8 J	11.4 J	38.6 J	14.4 J	11.9 J	14.7 J	30.1 J	63.2 J	29.9 J	23.7 J	18.4 J	20.9 J
Cadmium	0.065 U	0.067 U	0.302	0.067 U	0.068 U	0.067 U	0.07 U	0.065 U	0.068 U	0.065 U	0.068 U	0.067 U
Chromium	9.83 J	10.8 J	7.71 J	13.4 J	3.83 J	6.52 J	8.31 J	21 J	8.96 J	8.42 J	9.75 J	9.82 J
Lead	73.9	8.02	99.4	9.68	12.5	26.1	34	39	16.9	7.51	17.4	29.2
Mercury	0.102	0.022	0.057	0.012	0.021	0.022	0.066	0.022	0.02	0.02	0.025	0.041
Selenium	0.533 J	0.329 J	0.304 J	0.369 J	0.385 J	0.272 J	0.547 J	0.862 J	0.717 J	0.658 J	0.461 J	0.653 J
Silver	0.611	0.294 J	0.512	0.391 J	0.297 J	0.322 J	0.508	1.01	0.653	0.56	0.39 J	0.511

DATA SUMMARY TABLE

Lab Sample ID	F3758-13	F3758-14	F3758-17	F3758-18	F3758-19	F3758-20	F3758-21	F3758-22	F3758-23	F3758-24	F3758-25	F3758-26
Field Sample ID	B-3-1820-082614	B-8-0002-082614	B-8-1820-082614	B-2-0002-082614	B-2-0406-082614	B-1-0002-082614	B-1-0406-082614	B-9-0002-082714	B-9-1620-082714	B-10-0002-082714	B-10-1620-082714	DUP-1
Sample Location	B-3	B-8	B-8	B-2	B-2	B-1	B-1	B-9	B-9	B-10	B-10	B-10
Sample Date	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/26/14	08/27/14	08/27/14	08/27/14	08/27/14	08/27/14
Metals (mg/kg)												
Arsenic	4.35	3.42	1.65	4.18	5.59	3.09	4.08	3.08	1.77	3.92	2.42	5.85
Barium	24.6 J	25.7 J	9.11 J	26.1 J	30.2 J	27.1 J	35.6	19.5	26.2	26.5	13.3	39.4
Cadmium	0.068 U	0.07 U	0.068 U	0.069 U	0.068 U	0.068 U	0.07 U	0.07 U	0.067 U	0.07 U	0.067 U	0.069 U
Chromium	14.3 J	7.44 J	5.56 J	8.95 J	11 J	7.78 J	9.59	6.12	7.25	6.34	12	7.39
Lead	4.77	17.8	2.23	26.8	27.6	7.42	66.1	6.09	6.57	36.5	6.02	29.9
Mercury	0.01 J	0.023	0.005 J	0.036	0.037	0.017	0.083	0.011	0.007 J	0.054	0.005 U	0.045
Selenium	0.533 J	0.686 J	0.334 J	0.527 J	0.943	0.497 J	0.747 J	0.234 U	0.297 J	0.789 J	0.518 J	1.34
Silver	0.492	0.696	0.222 J	0.574	0.778	0.399 J	0.533	0.372 J	0.32 J	0.446 J	0.346 J	0.631

Data Review Qualification Actions

Case: Huntington
SDG: F3758

Analyte	Samples	Evaluation Criteria	Action Needed	Comments
VOCs:				
Acrolein	F3758-01, 04, 05, 06, 07, 08, 09, 10, 11 12, 13	LCS	J/R	low bias
cis-1,2-dichloroethene and cyclohexane	F3758-05, 04, 10, 11, 13	LCS	J/R	low bias
2-chloroethylvinyl ether and acrolein	F3758-03, 02, 17, 22, 23, 24, 25, 26, 14	LCS	J/R	low bias
1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane, chloroethane, trichlorofluoromethane	F3578-14	MS/MSD	J detects	high bias; all ND
2-chloroethyl vinyl ether	F3578-14	MS/MSD	J/UJ	low bias; already R
carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloropropene, benzene, trichloroethene, 1,2-dichloropropane, bromodichloromethane, dibromomethane, cis-1,3-dichloropropene, vinylacetate, trans-1,3-dichloropropene, methylcyclohexane	B-3-0002, B10-0002	1,2-dichloroethane-d4 surrogate out	J detects	high bias; all ND
bromobenzene, 1,2,3-trichloropropane, n-propylbenzene, 2-chlorotoluene, 1,3,5-trimethylbenzene, t-butylbenzene, 1,2,4-trimethylbenzene, s-butylbenzene, p-isopropyltoluene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, n-butylbenzene, 1,2-dichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, hexachlorobutadiene, naphthalene, 1,2,3-trichlorobenzene	B10-0002	4-bromofluorobenzene surrogate out	J/UJ	low bias

Data Review Qualification Actions

Case: Huntington

SDG: F3758

Analyte	Samples	Evaluation Criteria	Action Needed	Comments
bromobenzene, 1,2,3-trichloropropane, n-propylbenzene, 2-chlorotoluene, 1,3,5-trimethylbenzene, t-butylbenzene, 1,2,4-trimethylbenzene, s-butylbenzene, p-isopropyltoluene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, n-butylbenzene, 1,2-dichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, hexachlorobutadiene, naphthalene, 1,2,3-trichlorobenzene	B-4-0002, B-6-1820, B-11-0002, B-11-1720, B-11-2024, B-3-0002, B-10-0002, B-10-1620, DUP-1	1,4-dichlorobenzene-d4 IS out	J/UJ	low bias
1,1,2-trichloroethane, 2-chloroethyl vinyl ether, 1,3-dichloropropane, dibromochloromethane, bromoform, 4-methyl-2-pentanone, toluene, tetrachloroethene, isopropylbenzene, 1,1,2,2-tetrachloroethane, 2-hexanone, 1,2-dibromoethane, chlorobenzene, 1,1,1,2-tetrachloroethane, ethylbenzene, o-xylene, M+P-xylene, styrene	B-10-0002, DUP-1	chlorobenzene-d5 IS out	J/UJ	low bias; 2CEVE already R
vinyl acetate, bromochloromethane, 2-chloroethyl vinyl ether	F3758-01, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13	CCV out	J/UJ	
bromochloromethane, dibromochloromethane, trichloroethene, bromoform, 1,2,4-trichlorobenzene, hexachlorobutadiene, naphthalene, 1,2,3-trichlorobenzene, acrolein	F3758-05, 04, 10, 11, 13	CCV out	J/UJ	acrolein R already
acrolein, 2-chloroethyl vinyl ether	F3758-03, 02, 17, 22, 23, 24, 25, 26, 14	CCV out	J/UJ	already R
All	RE samples		not report	
SVOCs:				

Data Review Qualification Actions

Case: Huntington
SDG: F3758

Analyte	Samples	Evaluation Criteria	Action Needed	Comments
1,1-biphenyl, 2,2-oxybis(1-chloropropane),2,4,6-trichlorophenol, 2,4-dichlorophenol, 2,4-dimethylphenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2-chloronaphthalene, 2-chlorophenol, 2-methylnaphthalene, 2-methylphenol, 2-nitroaniline, 2-nitrophenol, 3/4-methylphenol, 4,6-dinitro-2-methylphenol, 4-bromophenylphenylether, 4-chloro-3-methylphenol, 4-chlorophenylphenylether, 4-nitroaniline	F3578-14	MS/MSD	J/UJ	low bias
acenaphthene, acenaphthylene, acetophenone, anthracene, atrazine, benzaldehyde, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-chloroethoxy)methane, bis(2-chloroethyl)ether, bis(2-ethylhexyl)phthalate, butylbenzylphthalate, carbazole, chrysene, dibenzofuran, diethylphthalate, dimethylphthalate, di-n-butylphthalate, di-n-octylphthalate, fluorene, hexachlorobenzene, hexachlorobutadiene, hexachloroethane, isophorone, naphthalene, nitrobenzene, n-nitroso-di-n-propylamine, n-nitrosodiphenylamine, phenol.	F3578-14	MS/MSD	J/UJ	low bias
phenol, bis(2-chloroethyl)ether, 2-chlorophenol, 2-methylphenol, 2,2-oxybis(1-chloropropane), 4-methylphenol, N-nitroso-di-n-propylamine, hexachloroethane	B-4-0002, B-4-1618, B-5-0002, B-5-1620, B-2-0002, B-2-0406	phenol-d5 and/or 2-fluorophenol surrogates out	J/UJ	low bias

Data Review Qualification Actions

Case: Huntington
SDG: F3758

Analyte	Samples	Evaluation Criteria	Action Needed	Comments
nitrobenzene, isophorone, 2-nitrophenol, 2,4-dimethylphenol, bis(2-chloroethoxy)methane, 2,4-dichlorophenol, naphthalene, 4-chloroaniline, hexachlorobutadiene, 4-chloro-3-methylphenol, 2-methylnaphthalene	B-4-0002, B-4-1618, B-5-1620, B-2-0002, B-2-0406	nitrobenzene-d5 surrogate out	J/UJ	low bias
hexachlorocyclopentadiene, 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 2-chloronaphthalene, 2-nitroaniline, dimethylphthalate, 2,6-dinitrotoluene, acenaphthylene, 3-nitroaniline, acenaphthene, 2,4-dinitrophenol, 4-nitrophenol, dibenzofuran, 2,4-dinitrotoluene, diethylphthalate, fluorene, 4-chlorophenyl-phenylether, 4-nitroaniline	B-4-0002, B-4-1618, B-5-0002, B-5-1620, B-11-0002, B-7-1820, B-3-0002, B-3-1820RE, B-8-0002, B-2-0002, B-2-0406, B-1-0002, B-9-0002	2,4,6-tribromophenol and/or 2-fluorobiphenyl surrogates out	J/UJ	low bias
pyrene, butylbenzylphthalate, 3,3-dichlorobenzidine, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, indeno(1,2,3-cd)pyrene	B-4-0002, B-4-1618, B-5-0002, B-5-1620, B-6-0002, B-11-0002, B-7-0002, B-7-1820, B-3-0002, B-3-1820RE, B-8-0002, B-2-0002, B-2-0406, B-1-0002, DUP-1	terphenyl-d14 surrogate out	J/UJ	low bias
pyrene, butylbenzylphthalate, 3,3-dichlorobenzidine, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, indeno(1,2,3-cd)pyrene	B-8-0002, B-4-0002, B-5-1620, B-6-0002, B-4-1618, B-11-0002, B-7-1820, B-2-0002, B-3-0002, B-2-0406	Chrysene-d12 IS out	J detects	high bias
phenol, bis(2-chloroethyl)ether, 2-chlorophenol, 2-methylphenol, 2,2-oxybis(1-chloropropane), 4-methylphenol, N-nitroso-di-n-propylamine, hexachloroethane	B-4-0002, B-4-1618, B-11-0002, B-7-1820, B-3-0002, B-2-0002, B-2-0406	1,4-dichlorobenzene-d4 IS out	J detects	high bias
benzo(ghi)perylene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene	B-4-0002, B-4-1618, B-11-0002, B-7-1820, B-3-0002, B-2-0002, B-2-0406	perylene-d12 IS out	J detects	high bias

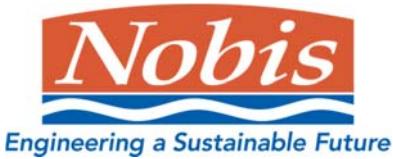
Data Review Qualification Actions

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Analyte	Samples	Evaluation Criteria	Action Needed	Comments
nitrobenzene, isophorone, 2-nitrophenol, 2,4-dimethylphenol, bis(2-chloroethoxy)methane, 2,4-dichlorophenol, naphthalene, 4-chloroaniline, hexachlorobutadiene, 4-chloro-3-methylphenol, 2-methylnaphthalene	B-11-0002, B-7-1820, B-3-0002, B-2-0002, B-2-0406	naphthalene-d8 IS out	J detects	high bias
hexachlorocyclopentadiene, 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 2-chloronaphthalene, 2-nitroaniline, dimethylphthalate, 2,6-dinitrotoluene, acenaphthylene, 3-nitroaniline, acenaphthene, 2,4-dinitrophenol, 4-nitrophenol, dibenzofuran, 2,4-dinitrotoluene, diethylphthalate, fluorene, 4-chlorophenyl-phenylether, 4-nitroaniline	B-11-0002, B-7-1820, B-3-0002, B-2-0002, B-2-0406	acenaphthene-d10 IS out	J detects	high bias
4,6-dinitro-2-methylphenol, 4-bromophenyl-phenyl ether, N-nitrosodiphenylamine, hexachlorobenzene, di-n-butylphthalate, pentachlorophenol, phenanthrene, anthracene, fluoranthene	B-11-0002, B-7-1820, B-3-0002, B-2-0002, B-2-0406	phenanthrene-d10 IS out	J detects	high bias
pentachlorophenol	F3758-23, 24, 25, 26, 10, 22, 20, 17, 13RE, 02	CCV out	J/UJ	
All	RE samples except for B-3-1820		not report	confirmed first analysis
All	B-3-1820		not report	no issues with RE
Metals:				
Barium and Chromium	F3758-01 through 20	serial dilution out	J/UJ	sample B-8-0002

Note: Only reportable samples are listed for qualification.



Generic Data Review Checklist

Project: Reg. 2 RAC Brownfields Huntington Site
Project #: 84001.03, 0135
Case#: NA
Date: 9/26/14
Methods: VOCs (8260C), SVOCs (8270D), Pest (8081B), PCBs (8082A), Metals (6010B/7471A), GRO (8015B), DRO (8015B)
Laboratory: Chemtech
SDG: F3758
Reviewer: Gail DeRuzzo

1. Case Narrative and Data Package Completeness (COC and Analyte List Review)

Soils only:

VOCs, GRO, DRO – 20 (1-14, 17, 22-26)

SVOC, metals – 24 (1-14, 17-26)

Pest/PCB – 8 (7-9, 22-26)

Level 2 report of all tests and Level IV reports for each parameter were received.

All requested tests on samples were completed.

Samples 15 and 16 are the MS/MSD.

2. Holding Time and Sample Preservation Compliance

OK.

3. Lab and Field Blanks

OK

4. Laboratory Control Samples

VOCs:

The Blank Spike for {VD0829SBS01} with File ID: VD043116.D met requirements for all samples except for Acrolein[57%]. **Samples 01, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13.**

The Blank Spike for {VD0902SBS01} with File ID: VD043135.D met requirements for all samples except for cis-1,2-Dichloroethene[77%], Cyclohexane[67%]. **Samples 05, 04, 01RE, 06RE, 07RE, 09RE, 08RE, 10, 11, 12RE, 13, 24RE, 25RE, 26RE.**

The Blank Spike for {VF0829SBS01} with File ID: VF042699.D met requirements for all samples except for 2-Chloroethyl vinyl ether[0%], Acrolein[43%]. **Samples 03, 02, 17, 22, 23, 24, 25, 26, 14.**

The Blank Spike for {VF0902SBS01} with File ID: VF042719.D met requirements for all samples except for 1,1-Dichloroethane[75%], 2-Chlorotoluene[82%], Acrolein[36%], Carbon Tetrachloride[72%], Chloroethane[61%], N-propylbenzene[79%] and trans-1,2-Dichloroethene[67%]. **No action – MS/MSD only.**

Actions: Associated sample/analytes are flagged J/R.

5. Field Duplicate Precision

B-10-0002 (24/26) – all analytes met criteria.

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6. Laboratory Duplicate Precision NA

7. Matrix Spikes

Requested on B-8-0002-VOCs yes, SVOCs yes, GRO and DRO - yes, metals – yes.
Pest/PCB – not requested.

VOCs:

The **MS** {F3758-15MS} with File ID: VF042718.D recoveries met the requirements for all compounds except for 1,2,3-Trichloropropane[139%], 1,2-Dibromo-3-Chloropropane[147%], 2-Chloroethyl vinyl ether[0%], Chloroethane[177%] and Trichlorofluoromethane[147%]. The **MSD** {F3758-16MSD} with File ID: VF042720.D recoveries met the acceptable requirements except for 2-Chloroethyl vinyl ether[0%].

Actions: J/UJ spike sample results that are out for recovery in spiked sample.

The **RPD** for {F3758-16MSD} with File ID: VF042720.D recoveries met criteria except for 1,1,1,2-Tetrachloroethane[25%], 1,1,1-Trichloroethane[29%], 1,1,2,2-Tetrachloroethane[28%], 1,1,2-Trichloroethane[22%], 1,1,2-Trichlorotrifluoroethane[29%], 1,1-Dichloroethane[35%], 1,1-Dichloroethene[28%], 1,2,3-Trichloropropane[27%], 1,2,4-Trimethylbenzene[31%], 1,2-Dibromo-3-Chloropropane[25%], 1,2-Dichlorobenzene[23%], 1,2-Dichloropropane[23%], 1,3,5-Trimethylbenzene[31%], 1,3-Dichlorobenzene[23%], 1,3-Dichloropropane[21%], 1,4-Dichlorobenzene[22%], 2,2-Dichloropropane[22%], 2-Butanone[27%], 2-Chlorotoluene[30%], 2-Hexanone[21%], Benzene[21%], Bromobenzene[28%], Bromochloromethane[38%], Bromodichloromethane[24%], Bromomethane[29%], Carbon disulfide[27%], Carbon Tetrachloride[21%], Chloroethane[35%], Chloroform[28%], Chloromethane[30%], Cyclohexane[31%], Dibromochloromethane[22%], Dichlorodifluoromethane[25%], Diethyl Ether[36%], Ethyl Benzene[25%], Isopropylbenzene[33%], m/p-Xylenes[22%], Methyl Acetate[28%], Methyl tert-butyl Ether[26%], Methylene Chloride[35%], n-Butylbenzene[29%], N-propylbenzene[24%], o-Xylene[22%], p-Isopropyltoluene[26%], Sec-butylbenzene[33%], t-1,3-Dichloropropene[23%], tert-Butylbenzene[30%], Tetrachloroethene[21%], Toluene[23%], Trichlorofluoromethane[37%] and Vinyl chloride[29%]. **No action taken for RPDs.**

SVOCs:

The **MS** {F3758-15MS} with File ID: BE087526.D recoveries met the requirements for all compounds except for 1,1-Biphenyl[34%], 2,2-oxybis(1-Chloropropane)[37%], 2,4,6-Trichlorophenol[35%], 2,4-Dichlorophenol[36%], 2,4-Dimethylphenol[35%], 2,4-Dinitrotoluene[32%], 2,6-Dinitrotoluene[32%], 2-Chloronaphthalene[34%], 2-Chlorophenol[34%], 2-Methylnaphthalene[36%], 2-Methylphenol[33%], 2-Nitroaniline[37%], 2-Nitrophenol[31%], 3+4-Methylphenols[36%], 4,6-Dinitro-2-methylphenol[9%], 4-Bromophenyl-phenylether[37%], 4-Chloro-3-methylphenol[36%], 4-Chlorophenyl-phenylether[34%], 4-Nitroaniline[36%], Acenaphthene[34%], Acenaphthylene[34%], Acetophenone[38%], Anthracene[35%], Atrazine[34%], Benzaldehyde[7%], Benzo(a)anthracene[33%], Benzo(b)fluoranthene[34%], Benzo(k)fluoranthene[33%], bis(2-Chloroethoxy)methane[36%], bis(2-Chloroethyl)ether[37%], bis(2-Ethylhexyl)phthalate[29%], Butylbenzylphthalate[33%], Carbazole[36%], Chrysene[32%], Dibenzofuran[34%], Diethylphthalate[38%],

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Dimethylphthalate[33%], Di-n-butylphthalate[36%], Di-n-octyl phthalate[32%], Fluorene[34%], Hexachlorobenzene[34%], Hexachlorobutadiene[33%], Hexachloroethane[29%], Isophorone[33%], Naphthalene[34%], Nitrobenzene[32%], NNitroso-di-n-propylamine[34%], N-Nitrosodiphenylamine[37%] and Phenol[34%].

The **MSD** {F3758-16MSD} with File ID: BE087527.D recoveries met the acceptable requirements except for 1,1-Biphenyl[41%], 2,4-Dimethylphenol[42%], 2,4-Dinitrotoluene[38%], 2,6-Dinitrotoluene[39%], 2-Chloronaphthalene[39%], 2-Methylnaphthalene[41%], 2-Methylphenol[40%], 2-Nitroaniline[43%], 3+4-Methylphenols[41%], 4-Bromophenyl-phenylether[44%], 4-Chloro-3-methylphenol[42%], 4-Chlorophenyl-phenylether[41%], Acenaphthene[40%], Acenaphthylene[39%], Acetophenone[44%], Anthracene[40%], Benzaldehyde[9%], Benzo(k)fluoranthene[38%], bis(2-Chloroethoxy)methane[43%], bis(2-Chloroethyl)ether[42%], bis(2-Ethylhexyl)phthalate[34%], Butylbenzylphthalate[39%], Carbazole[41%], Dibenzofuran[39%], Diethylphthalate[39%], Di-n-butylphthalate[42%], Di-n-octyl phthalate[37%], Fluorene[39%], Hexachlorobenzene[40%], Hexachlorobutadiene[38%], Isophorone[39%], Naphthalene[39%], Nitrobenzene[38%], N-Nitrosodiphenylamine[43%] and Phenol[37%].

Actions: J/UJ spike sample results that are out for recovery in spiked sample

The **RPD** for {F3758-16MSD} with File ID: BE087527.D recoveries met criteria except for 2,4-Dinitrophenol[40%], 2-Nitrophenol[28%], 3,3-Dichlorobenzidine[22%], 4,6-Dinitro-2-methylphenol[43%], 4-Chloroaniline[34%], 4-Nitrophenol[24%], Benzaldehyde[25%], Benzo(b)fluoranthene[21%], Caprolactam[39%], Dimethylphthalate[39%], Hexachlorocyclopentadiene[29%], Hexachloroethane[24%] and Pentachlorophenol[24%]. **No action taken for RPDs.**

DRO:

The RPD for File ID: FC013104.D recoveries met criteria except for DRO[22.5]. **No action.**

8. Surrogate Spikes

VOCs: The Surrogate recoveries met the acceptable criteria except for B-3-0002-082614 [1,2-Dichloroethane-d4 - 129%],

B-10-0002-082714 [1,2-Dichloroethane-d4 - 124%, 4-Bromofluorobenzene - 30%]

Actions: estimate associated analyte results J/UJ. Qualified analytes associated with the same IS quantitation per lab SOP.

B-10-0002-082714RE [1,2-Dichloroethane-d4 - 125%, 4-Bromofluorobenzene - 24%, Dibromofluoromethane - 162%]
B-10-1620-082714RE [1,2-Dichloroethane-d4 - 131%, Dibromofluoromethane - 153%, Toluene-d8 - 131%].

RE samples not reported – no action taken.

SVOCs:

The Surrogate recoveries met the acceptable criteria except for

B-4-0002-082514 [2,4,6-Tribromophenol - 23%, 2-Fluorobiphenyl - 24%, 2-Fluorophenol - 23%, Nitrobenzene-d5- 21%, Phenol-d6 - 23%, Terphenyl-d14 - 19%], **- J/UJ**

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B-4-0002-082514RE [2,4,6-Tribromophenol - 15%, 2-Fluorobiphenyl - 17%, 2-Fluorophenol - 18%, Nitrobenzene-d5- 16%, Phenol-d6 - 18%, Terphenyl-d14 - 16%], -not reported

B-4-1618-082514 [2-Fluorobiphenyl -28%, Nitrobenzene-d5 - 28%, Phenol-d6 - 28%, Terphenyl-d14 - 26%], - J/UJ

B-4-1618-082514RE [2,4,6-Tribromophenol - 28%, 2-Fluorobiphenyl - 25%, Nitrobenzene-d5 - 26%, Phenol-d6 - 28%, Terphenyl-d14 - 25%], -not reported

B-5-0002-082614 [2,4,6-Tribromophenol- 18%, 2-Fluorobiphenyl - 37%, 2-Fluorophenol - 27%, Phenol-d6 - 33%, Terphenyl-d14- 30%], - J/UJ

B-5-0002-082614RE [2,4,6-Tribromophenol - 14%, 2-Fluorobiphenyl - 30%, 2-Fluorophenol - 23%, Nitrobenzene-d5 - 28%, Phenol-d6 - 30%, Terphenyl-d14 - 30%],-not reported

B-5-1620-082614 [2,4,6-Tribromophenol - 24%, 2-Fluorobiphenyl - 25%, 2-Fluorophenol - 23%, Nitrobenzene-d5 - 22%, Phenol-d6 - 25%, Terphenyl-d14 - 19%],- J/UJ

B-5-1620-082614RE [2,4,6-Tribromophenol - 20%, 2-Fluorobiphenyl - 20%, 2-Fluorophenol - 22%, Nitrobenzene-d5 - 20%, Phenol-d6 - 23%, Terphenyl-d14 - 20%],-not reported

B-6-0002-082614 [Terphenyl-d14 - 31%], - - J/UJ

B-6-0002-082614RE [2-Fluorobiphenyl -37%], - not reported

B-11-0002-082614 [2-Fluorobiphenyl - 31%, Terphenyl-d14 - 30%], - J/UJ

B-11-0002-082614RE [2-Fluorobiphenyl - 30%, Terphenyl-d14 - 31%], -not reported

B-7-0002-082614[Terphenyl-d14 - 34%], - J/UJ

B-7-1820-082614 [2-Fluorobiphenyl - 35%, Terphenyl-d14 - 34%], - J/UJ

B-7-1820-082614RE [2-Fluorobiphenyl - 33%, Terphenyl-d14 - 33%], - not reported

B-3-0002-082614 [2-Fluorobiphenyl - 33%, Terphenyl-d14 - 31%], - J/UJ

B-3-0002-082614RE [2-Fluorobiphenyl - 31%, Terphenyl-d14 - 30%], -not reported

B-3-1820-082614 [2-Fluorobiphenyl -34%, Terphenyl-d14 - 27%], -not reported

B-3-1820-082614RE [2-Fluorobiphenyl - 32%, Terphenyld14- 31%], - J/UJ

B-8-0002-082614 [2-Fluorobiphenyl - 33%, Terphenyl-d14 - 25%], - J/UJ

B-8-0002-082614RE [2-Fluorobiphenyl - 28%, Terphenyl-d14 - 28%], -not reported

B-8-0002-082614MS[2-Fluorobiphenyl - 33%, Terphenyl-d14 - 29%], - no action taken

B-8-0002-082614MSD [2-Fluorobiphenyl - 38%, Terphenyl-d14 - 34%], B-8-1820-082614 [2-Fluorobiphenyl -35%, Terphenyl-d14 - 35%], - no action taken

B-8-1820-082614RE [2-Fluorobiphenyl - 33%, Terphenyld14- 32%], -not reported

B-2-0002-082614 [2-Fluorobiphenyl - 28%, Nitrobenzene-d5 - 30%, Phenold6 - 33%, Terphenyl-d14 - 26%], - J/UJ

B-2-0002-082614RE [2-Fluorobiphenyl - 26%,Nitrobenzene-d5 - 28%, Terphenyl-d14 - 26%], - not reported

B-2-0406-082614 [2,4,6-Tribromophenol- 26%, 2-Fluorobiphenyl - 24%, Nitrobenzene-d5 - 25%, Phenol-d6 - 29%, Terphenyld14- 23%], - J/UJ

B-2-0406-082614RE [2,4,6-Tribromophenol - 26%, 2-Fluorobiphenyl - 24%, Nitrobenzene-d5 - 24%, Phenol-d6 - 28%, Terphenyl-d14 - 23%], -not reported

B-1-0002-082614 [2-Fluorobiphenyl - 32%, Terphenyl-d14 - 32%],- J/UJ

B-1-0002-082614RE [2-Fluorobiphenyl -30%, Terphenyl-d14 - 30%], -not reported

B-9-0002-082714 [2-Fluorobiphenyl - 38%] - J/UJ

DUP-1 [Terphenyl-d14 - 35%].- J/UJ

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Actions: estimate associated analyte results J/UJ. Qualified analytes associated with the same IS quantitation per lab SOP.

9. Internal Standards

VOCs:

The Internal Standards Areas met the acceptable requirements except for B-4-0002-082514, B-4-0002-082514RE, B-6-1820-082614, B-6-1820-082614RE, B-11-0002-082614, B-11-0002-082614RE, B-11-1720-082614, B-11-1720-082614RE, B-11-2024-082614, B-11-2024-082614RE, B-3-0002-082614, B-3-0002-082614RE, B-10-0002-082714, B-10-0002-082714RE, B-10-1620-082714, B-10-1620-082714RE, DUP-1 and DUP-1RE.

Action: Report first run. All RES had similar failures. Qualify J/UJ associated analytes. All areas low. Qualified analytes associated with the same IS quantitation per lab SOP.

SVOCs:

The Internal Standards Areas met the acceptable requirements except for B-4-0002-082514, B-4-0002-082514RE, B-4-1618-082514, B-4-1618-082514RE, B-5-1620-082614, B-5-1620-082614RE, B-6-0002-082614, B-6-0002-082614RE, B-11-0002-082614, B-11-0002-082614RE, B-7-0002-082614, B-7-1820-082614, B-7-1820-082614RE, B-3-0002-082614, B-3-0002-082614RE, B-3-1820-082614, B-8-0002-082614, B-8-0002-082614RE, B-8-1820-082614RE, B-2-0002-082614, B-2-0002-082614RE, B-2-0406-082614, B-2-0406-082614RE, B-1-0002-082614RE and DUP-1.

Action: Report first runs except for **B-3-1820 – RE** was in control. All RES had similar failures. Qualify J positives associated analytes. All areas high. Qualified analytes associated with the same IS quantitation per lab SOP.

10. Performance Evaluation Samples

NA

11. Reporting Limits

SVOCs:

Samples B-4-0002-082514, B-5-0002-082614, B-6-1820-082614, B-11-1720-082614, B-11-2024-082614 and B-1-0406-082614 were diluted due to bad matrices. Reported RLs still below QAPP RLs.

PCBs:

Samples B-11-0002-082614, B-11-1720-082614, B-11-2024-082614 and B-3-0002-082614 were diluted due to bad matrices. Reported RLs still below QAPP RLs.

12. Calibration Issues

VOCs:

The %RSD is greater than 20% in the Initial Calibration (Method 82D082114S.M) for Acrolein this compound is passing on Quadratic regression.

The %RSD is greater than 20% in the Initial Calibration (Method 82F081114S.M) for Chloroethane this compound is passing on Quadratic regression. 2-Chloroethyl Vinyl ether has %RSD over 20% for Initial Calibration 82F081114S.M and is not passing for

Project: Huntington
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LR/QR and this compound was kept on AvgRF. No action needed as alternative methods met requirements.

The Continuous Calibration File ID VD043114.D met the requirements except for Chloromethane <25%, **Vinyl Acetate, Bromochloromethane, 2-Chloroethyl Vinyl ether**, 1,2-Dichloroethane-d4 surrogate,4-Bromofluorobenzene surrogate,Dibromofluoromethane surrogate and Toluene-d8 surrogate .

Action: qualify J/UJ associated samples/analytes. – 8/29/14 samples (lab sample IDs, 01, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13). Only bolded analytes failed NFG criteria.

The Continuous Calibration File ID VD043133.D met the requirements except for **Bromochloromethane** ,Toluene <25%,cis-1,3-Dichloropropene <25%,1,1,2-Trichloroethane <25%,**Dibromochloromethane**,1,2-Dibromoethane <40%,Tetrachloroethene <25%, **Trichloroethene** , 1,1,1,2-Tetrachloroethane <25%,m/p-Xylenes <25%,**Bromoform**, Bromobenzene <25%. 1,2-Dichlorobenzene <25%,**1,2,4-Trichlorobenzene,Hexachlorobutadiene,Naphthalene,1,2,3-Trichlorobenzene and Acrolein**

Action: qualify associated samples/analytes (J/UJ) – 9/2/2014 samples (lab sample IDs 05, 04, 01RE, 06RE, 07RE, 09RE, 08RE, 10, 11, 12RE, 13, 24RE, 25RE, 26RE). REs not reported – no action. Only bolded analytes failed NFG criteria.

The Continuous Calibration File ID VF042697.D met the requirements except for Dichlorodifluoromethane <40%,**Acrolein,2-Chloroethyl Vinyl ether**,1,2-Dichloroethane-d4 surrogate,4-Bromofluorobenzene surrogate,Dibromofluoromethane surrogate,Toluene-d8 surrogate and Chloroethane <20% .

Action: qualify associated samples/analytes (J/UJ) – 8/29/2014 samples (lab sample IDs 03, 02, 17, 22, 23, 24, 25, 26, 14). Only bolded analytes failed NFG criteria.

The Continuous Calibration File ID VF042716.D met the requirements except for Methylcyclohexane <25%,Chloroethane <25% and **2-Chloroethyl Vinyl ether** . MS/MSD only. No action taken.

SVOCs:

The Initial Calibration met the requirements.

The Continuous Calibration File ID BE087519.D met the requirements except for 3,3-Dichlorobenzidine <25%. This compound is not present in any samples. No action required.

The Continuous Calibration File ID BF073610.D met the requirements except for **2,4,6-Tribromophenol**,Atrazine <25% ,2,4-Dinitrophenol <40%,**Pentachlorophenol** and Di-n-butylphthalate.<40%.These compounds are not present in any samples. Qualify J/UJ – samples analyzed 9/4 (23, 24, 25, 02). Only bolded analytes failed NFG criteria.

The Continuous Calibration File ID BF073628.D met the requirements except for 2,4,6-

Project: Huntington
Project #: 84001.03, 0135

Tribromophenol <25%, Di-n-butylphthalate <25%, 3,3-Dichlorobenzidine <25% and **Pentachlorophenol**. These compounds are not present in any samples. Qualify J/UJ – samples analyzed 9/5 (26, 13RE, 10, 22, 20, 17). Only bolded analytes failed NFG criteria.

The Continuous Calibration File ID BF073668.D met the requirements except for Hexachlorocyclopentadiene <40% and 2,4-Dinitrophenol <40%. These compounds are not present in any samples. **No action needed.**

The Continuous Calibration File ID BF073748.D met the requirements except for 2,4-Dinitrophenol <25%. This compound is not present in any samples. **No action needed.**

PCBs:

The Continuous Calibration File ID PC019018.D met the requirements except for Aroclor-1016(Peak), Tetrachloro-m-xylene are failing in 1st column but passing in 2nd column and Decachlorobiphenyl is failing in 2nd column but passing in 1st column.

The Continuous Calibration File ID PC019031.D met the requirements except for Aroclor-1016(Peak-1,5), Aroclor-1260(Peak-4), Tetrachloro-m-xylene are failing in 1st column but passing in 2nd column, Aroclor-1260(Peak-5) is failing in 2nd column but passing in 1st column and Decachlorobiphenyl is failing in both column (but in control). **No action required. One column passed for all or not affected.**

13. Other

Metals:

The Serial Dilution (B-8-0002-082614L) met criteria for all samples except for Chromium and Barium.

Action: Estimate Cr and Ba results in affected samples (J/UJ). Samples in prep batch/SDG are: F3758-01-20.

TABLE 3
CHARACTERISTIC IONS FOR VOLATILE TARGET COMPOUNDS

Analyte	Primary Ion*	Secondary Ion(s)	Internal Standard for Quantitation
Dichlorodifluoromethane	85	87	IS1
Chloromethane	50	52	IS1
Vinyl chloride	62	64	IS1
Bromomethane	94	96	IS1
Chloroethane	64	66	IS1
Trichlorofluoromethane	151	101,153	IS1
1,1-Dichloroethene	96	61, 63	IS1
Carbon disulfide	76	78	IS1
Methylene Chloride	84	49, 86	IS1
Acetone	58	43	IS1
t-Butyl alcohol	59	74	IS1
trans-1,2-Dichloroethene	96	61, 98	IS1
Acrolein	56	55,58	IS1
Acrylonitrile	53	40,39	IS1
t-Butyl methyl ether	73	57	IS1
1,1-Dichloroethane	63	65, 83	IS1
2-Butanone	72	43	IS1
2,2-Dichloropropane	77	97	IS1
cis-1,2-Dichloroethene	96	61, 98	IS1
Bromochloromethane	128	49,130	IS1
Chloroform	83	85	IS1
1,1,1-Trichloroethane	97	99, 61	IS1
✓ Carbon tetrachloride	117	119	IS2
- 1,1-Dichloropropene	75	110,77	IS2
- Benzene	78	76,77	IS2
✓ 1,2-Dichloroethane	62	98	IS2
- Trichloroethene	95	97, 130, 132	IS2
- 1,2-Dichloropropane	63	112	IS2
- Bromodichloromethane	83	85, 127	IS2
- Dibromomethane	174	95,174	IS2
- cis-1,3-Dichloropropene	75	77, 39	IS2
- Vinyl Acetate	43	86	IS2
- trans-1,3-Dichloropropene	75	77, 39	IS2
1,1,2-Trichloroethane	83	97, 85	IS3

TABLE 3
CHARACTERISTIC IONS FOR VOLATILE TARGET COMPOUNDS

Analyte	Primary Ion*	Secondary Ion(s)	Internal Standard for Quantitation
2-Chloroethyl vinyl ether	63	65,106	IS3
1,3-Dichloropropane	76	78	IS3
Dibromochloromethane	129	127	IS3
Bromoform	173	175, 254	IS3
4-Methyl-2-pentanone	100	43, 85	IS3
Toluene	92	91	IS3
Tetrachloroethene	164	129, 131, 166	IS3
Isopropylbenzene	105	120	IS3
1,1,2,2-Tetrachloroethane	83	131, 85	IS3
2-Hexanone	43	58, 57, 100	IS3
1,2-Dibromoethane	107	109,188	IS3
Chlorobenzene	112	77, 114	IS3
1,1,1,2-Tetrachloroethane	131	133,119	IS3
Ethylbenzene	91	106	IS3
o- Xylene	106	91	IS3
m+p- Xylene	106	91	IS3
Styrene	104	78	IS3
Bromobenzene	156	77,158	IS4
1,2,3-Trichloropropane	75	77	IS4
n-Propylbenzene	91	120	IS4
2-Chlorotoluene	91	126	IS4
1,3,5-Trimethylbenzene	105	120	IS4
4-Chlorotoluene	91	126	IS4
tert-Butylbenzene	119	91,134	IS4
1,2,4-Trimethylbenzene	105	120	IS4
sec-Butylbenzene	105	134	IS4
p-Isopropyltoluene	119	134,91	* IS4
1,3-Dichlorobenzene	146	111,148	IS4
1,4-Dichlorobenzene	146	111,148	IS4
n-Butylbenzene	91	92	IS4
1,2-Dichlorobenzene	146	111,148	IS4
1,2-Dibromo-3-Chloropropane	75	155,157	IS4
1,2,4-Trichlorobenzene	180	182,145	IS4
Hexachlorobutadiene	225	223,227	IS4
Naphthalene	128	--	IS4
1,2,3-Trichlorobenzene	180	182,145	IS4
Cyclohexane	56	69, 84	IS1
Methyl acetate	43	74	IS1
Methyl cyclohexane	83	59, 98	IS2

Analyte	Primary Ion*	Secondary Ion(s)	Internal Standard for Quantitation
Trichlorotrifluoroethane	101	103	IS1
Diethyl ether	74	45	IS1
Hexachloroethane	117	201	IS4
Allyl chloride	41	39, 76	IS1
Ethyl acetate	43	61, 70	IS1
Ethyl methacrylate	69	41, 39	IS2
Isobutyl alcohol	43	41, 42	IS2
Methacrylonitrile	41	39, 67	IS2
1,4-Dioxane	88	43, 58	IS2
Surrogate Compounds (System Monitoring Compounds)			
Dibromofluoromethane	113	--	IS1
1,2-Dichloroethane-d4	65	102	IS2
Toluene-d8	98	70, 100	IS3
4-Bromofluorobenzene	95	174, 176	IS4
Internal Standards			
Pentafluorobenzene (IS 1)	168	--	IS1
1,4-Difluorobenzene (IS 2)	114	68, 88	IS2
Chlorobenzene-d5 (IS 3)	117	82, 119	IS3
1,4-Dichlorobenzene-d4 (IS 4)	152	115, 150	IS4

*The primary ion should be used unless interferences are present, in which case, a secondary ion may be used.

**m/z 43 is used for quantitation of 2-Butanone, but m/z 72 must be present for positive identification.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: NOBI01
Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758
Lab File ID: VD043114.D Date Analyzed: 08/29/2014
Instrument ID: MSVOA_D Time Analyzed: 09:42
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	360365	13.96				
UPPER LIMIT	720730	14.46				
LOWER LIMIT	180183	13.46				
EPA SAMPLE NO.						
B-4-0002-082514	126902 *	13.96				
B-6-1820-082614	172026 *	13.96				
B-11-0002-082614	134250 *	13.96				
B-11-1720-082614	102829 *	13.96				
B-11-2024-082614	115890 *	13.97				
B-3-0002-082614	106352 *	13.96				
VD0829SBL01	227922	13.96				
VD0829SBS01	319007	13.96				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: NOBI01
 Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758
 Lab File ID: VD043133.D Date Analyzed: 09/02/2014
 Instrument ID: MSVOA_D Time Analyzed: 09:24
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	844430	6.41	1282160	7.52	1063290	11.64
	1688860	6.91	2564310	8.02	2126590	12.14
	422215	5.91	641078	7.02	531647	11.14
EPA SAMPLE NO.						
B-4-0002-082514RE	872859	6.40	1344190	7.52	911228	11.63
B-5-1620-082614	900852	6.40	1375990	7.52	1029460	11.63
B-6-0002-082614	873132	6.40	1054690	7.52	780063	11.64
B-6-1820-082614RE	763817	6.40	1040480	7.53	732539	11.64
B-11-0002-082614RE	827937	6.40	1191020	7.52	744164	11.64
B-11-1720-082614RE	717492	6.41	1004140	7.52	636743	11.63
B-11-2024-082614RE	711083	6.40	994547	7.52	672492	11.64
B-7-0002-082614	819088	6.40	1236400	7.51	910031	11.64
B-7-1820-082614	730803	6.40	1026590	7.53	747210	11.64
B-3-0002-082614RE	843552	6.40	1197620	7.52	825040	11.64
B-3-1820-082614	796442	6.40	1303600	7.53	873587	11.64
B-10-0002-082714RE <i>NOT reported</i>	428917	6.40	553793 *	7.52	205797 *	11.63
B-10-1620-082714RE <i>N</i>	627314	6.41	853511	7.52	485964 *	11.63
DUP-1RE <i>↓</i>	566516	6.40	823001	7.53	406835 *	11.64
VD0902SBL01	966058	6.39	1203860	7.52	1053140	11.63
VD0902SBS01	1088430	6.39	1609730	7.52	1273150	11.64

IS1 = Pentafluorobenzene

IS2 = 1,4-Difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: NOBI01
 Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758
 Lab File ID: VD043133.D Date Analyzed: 09/02/2014
 Instrument ID: MSVOA_D Time Analyzed: 09:24
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	449913	13.97				
UPPER LIMIT	899826	14.47				
LOWER LIMIT	224957	13.47				
EPA SAMPLE NO.						
B-4-0002-082514RE <i>Not reported</i>	203468 *	13.97				
B-5-1620-082614	369190	13.96				
B-6-0002-082614	231595	13.96				
B-6-1820-082614RE <i>Not reported</i>	186884 *	13.96				
B-11-0002-082614RE	159801 *	13.96				
B-11-1720-082614RE	133490 *	13.97				
B-11-2024-082614RE <i>Not reported</i>	160043 *	13.96				
B-7-0002-082614	293332	13.97				
B-7-1820-082614	231089	13.96				
B-3-0002-082614RE <i>Not reported</i>	193568 *	13.96				
B-3-1820-082614	302872	13.96				
B-10-0002-082714RE <i>Not reported</i>	19700 *	13.97				
B-10-1620-082714RE	93172 *	13.97				
DUP-1RE <i>Not reported</i>	60558 *	13.96				
VD0902SBL01	354683	13.96				
VD0902SBS01	530008	13.96				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: NOBI01
 Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758
 Lab File ID: VF042697.D Date Analyzed: 08/29/2014
 Instrument ID: MSVOA_F Time Analyzed: 10:01
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	162229	4.89	273113	5.61	226487	9.77
	324458	5.39	546226	6.11	452974	10.27
	81114.5	4.39	136557	5.11	113244	9.27
EPA SAMPLE NO.						
B-4-1618-082514	175491	4.88	291877	5.61	238661	9.76
B-5-0002-082614	167858	4.89	271062	5.61	207769	9.76
B-8-0002-082614	156882	4.88	261245	5.61	208680	9.76
B-8-1820-082614	150336	4.88	247904	5.61	216150	9.76
B-9-0002-082714	159234	4.88	260991	5.60	212203	9.77
B-9-1620-082714	144350	4.89	233145	5.61	184391	9.76
B-10-0002-082714	96199	4.88	143595	5.61	62138 * ✓	9.77
B-10-1620-082714	127910	4.87	205799	5.60	140974 ✓	9.76
DUP-1	112059	4.88	179292	5.61	97497 *	9.76
VF0829SBL01	159985	4.88	270355	5.60	224442	9.77
VF0829SBS01	153762	4.88	252070	5.61	211418	9.76

IS1 = Pentafluorobenzene

IS2 = 1,4-Difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: NOBI01
Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758
Lab File ID: VF042697.D Date Analyzed: 08/29/2014
Instrument ID: MSVOA_F Time Analyzed: 10:01
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	112849	12.53				
UPPER LIMIT	225698	13.03				
LOWER LIMIT	56424.5	12.03				
EPA SAMPLE NO.						
B-4-1618-082514	104932	12.53				
B-5-0002-082614	69985	12.53				
B-8-0002-082614	83252	12.53				
B-8-1820-082614	104998	12.54				
B-9-0002-082714	81661	12.53				
B-9-1620-082714	63582	12.54				
B-10-0002-082714	10485	*✓	12.53			
B-10-1620-082714	33512	*✓	12.53			
DUP-1	18436	*	12.53			
VF0829SBL01	96948	12.53				
VF0829SBS01	96945	12.53				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

Table 4 (Cont.)
Internal Standards Used for Quantitation of Each Compound

Acenaphthene-d₁₀
Hexachlorocyclopentadiene
2,4,6-Trichlorophenol
2,4,5-Trichlorophenol
2,4,6-Tribromophenol(Surr)
2-Chloronaphthalene
2-Nitroaniline
Dimethylphthalate
2,6-Dinitrotoluene
Acenaphthylene
3-Nitroaniline
Acenaphthene
2,4-Dinitrophenol
4-Nitrophenol
Dibenzofuran
2,4-Dinitrotoluene
Diethylphthalate
Fluorene
4-Chlorophenyl-phenylether
4-Nitroaniline
2-Fluorobiphenyl (surr)
1,2,4,5-Tetrachlorobenzene
2,3,4,6-Tetrachlorophenol

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Phenantherene-d₁₀
4,6-Dinitro-2-methylphenol
4-Bromophenyl-phenylether
N-nitrosodiphenylamine
Hexachlorobenzene
Di-n-butylphthalate
Pentachlorophenol
Phenanthrene
Anthracene
Fluoranthene

Chrysene-d₁₂
Pyrene
Butylbenzylphthalate
3,3'-Dichlorobenzidine
Benzo(a)anthracene
Chrysene
bis(2-ethylhexyl)phthalate
Terphenyl-d₁₄ (surr)
Di-n-octylphthalate
Indeno(1,2,3-cd)pyrene
Benzidine

Perylene-d₁₂
Benzo(g,h,i)perylene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(a)pyrene
Dibenz(a,h)anthracene

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Surr = Surrogate Compound

CHEMTECH

SOP ID: M8270C/D-BNA-17

Revision # 17

QA Control Code: A2040031

Effective Date: January 23, 2012

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Table 3 (Cont.)
Characteristic Ions for Semivolatile Target Compounds and Surrogates/Internal Standards

Internal Standards		
Parameter	Primary Ion	Secondary Ion(s)
Acenaphthene-d10	164	162, 160
Phenanthrene-d10	188	94, 80
2-Fluorobiphenyl	172	171
Chrysene-d12	240	120, 236
Perylene-d12	264	260, 265

Table 4
Internal Standards Used for Quantitation of Each Compound

1,4-Dichlorobenzene-d ₄
1,3-dichlorobenzene
Phenol
1,4-Dioxane
bis(2-Chloroethyl)ether
2-Chlorophenol
2-Methylphenol
2,2'-oxybis(1-Chloropropane)
1,2-dichlorobenzene
4-Methylphenol
N-Nitroso-di-n-propylamine
Hexachloroethane
Phenol-d ₅ (surr)
2-Fluorophenol (surr)
n-nitrosodimethylamine
1,4-dichlorobenzene
2-chlorophenol-d4
1,2-dichlorobenzene-d4

Naphthalene-d ₈
Nitrobenzene
Isophorone
2-Nitrophenol
2,4-Dimethylphenol
bis(2-Chloroethoxy)methane
2,4-Dichlorophenol
Naphthalene
4-Chloroaniline
Hexachlorobutadiene
1,2,4-trichlorobenzene
4-Chloro-3-methylphenol
2-Methylnaphthalene
Nitrobenzene-d ₅ (surr)

(13)

(12)

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH
Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG No.: F3758
EPA Sample No.: SSTDCCC040 Date Analyzed: 09/04/2014
Lab File ID: BE087503.D Time Analyzed: 12:21
Instrument ID: BNA_E GC Column: RXI-5 ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	219347	20.95	119798	24.92	143610	26.72
	438694	21.45	239596	25.42	287220	27.22
	109674	20.45	59899	24.42	71805	26.22
	EPA SAMPLE NO. <i>Not Found</i>					
01	B-3-1820-082614	407656	295331 *	24.92	275836	26.73
02	PB78724BL	244242	178076	24.91	157678	26.72
03	PB78724BS	257108	142567	24.92	169923	26.72

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHLab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758EPA Sample No.: SSTDCCC040 Date Analyzed: 09/05/2014Lab File ID: BE087519.D Time Analyzed: 01:41Instrument ID: BNA_E GC Column: RXI-5 ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	104118	10.43	441537	13.37	195875	17.58
	208236	10.93	883074	13.87	391750	18.08
	52059	9.93	220769	12.87	97937.5	17.08
EPA SAMPLE NO.						
01	B-8-0002-082614	161885	10.44	672213	13.37	300594
02	B-8-0002-082614MS	165909	10.44	694381	13.37	314659
03	B-8-0002-082614MSD	188125	10.44	780138	13.38	337772
04	B-1-0406-082614	102636	10.43	408446	13.36	174660
05	B-4-0002-082514	209199 * N	10.43	837645	13.37	356965
06	B-5-0002-082614	101596	10.43	406834	13.36	177894
07	B-5-1620-082614	171181	10.43	706964	13.37	316705
08	B-6-0002-082614	191293	10.43	789797	13.37	346213
09	B-6-1820-082614	95605	10.43	388652	13.36	174066
10	B-11-1720-082614	104007	10.43	426227	13.36	182963

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758

EPA Sample No.: SSTDCCC040 Date Analyzed: 09/05/2014

Lab File ID: BE087519.D Time Analyzed: 01:41

Instrument ID: BNA E GC Column: RXI-5 ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	253440	20.95	134084	24.92	169652	26.73
	506880	21.45	268168	25.42	339304	27.23
	126720	20.45	67042	24.42	84826	26.23
EPA SAMPLE NO.						
01	B-8-0002-082614	391758	20.96	314027 * ✓	24.92	300523
02	B-8-0002-082614MS	415046	20.96	267244	24.93	306590
03	B-8-0002-082614MSD	432374	20.97	263723	24.93	311224
04	B-1-0406-082614	229121	20.95	181574	24.92	169846
05	B-4-0002-082514	479157	20.96	352424 *	24.92	342169 * ✓
06	B-5-0002-082614	237049	20.95	180951	24.91	174316
07	B-5-1620-082614	422754	20.96	333868 * ✓	24.93	332376
08	B-6-0002-082614	434957	20.96	345624 *	24.93	331262
09	B-6-1820-082614	227136	20.95	174585	24.92	169475
10	B-11-1720-082614	232164	20.95	161047	24.92	173139

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

8B

SEMOVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758

EPA Sample No.: SSTDCCC040 Date Analyzed: 09/04/2014

Lab File ID: BF073610.D Time Analyzed: 18:15

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	133581	5.49	532618	7.40	302759	10.15
	267162	5.99	1065240	7.9	605518	10.65
	66790.5	4.99	266309	6.9	151380	9.65
EPA SAMPLE NO.						
01	B-4-1618-082514	281382 *	5.49	1064840	7.4	589225
02	B-9-1620-082714f	233498	5.49	903121	7.4	512090
03	B-10-0002-082714	217214	5.49	832588	7.4	465915
04	B-10-1620-082714	236012	5.49	904828	7.4	494914
05	J-COMPMS	235837	5.49	914433	7.41	501172
06	J-COMPMSD	240135	5.49	904317	7.4	488186

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH
Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG No.: F3758
EPA Sample No.: SSTDCCC040 Date Analyzed: 09/04/2014
Lab File ID: BF073610.D Time Analyzed: 18:15
Instrument ID: BNA F GC Column: RTX-5 ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	552231	12.51	593735	16.29	520375	17.93
	1104460	13.01	1187470	16.79	1040750	18.43
	276116	12.01	296868	15.79	260188	17.43
	EPA SAMPLE NO.					
01	B-4-1618-082514	1067870	12.51	1209610 *✓	16.30	1108530 *✓ 17.95
02	B-9-1620-082714f	925635	12.51	974877	16.29	861730 17.95
03	B-10-0002-082714	850389	12.51	917523	16.29	866078 17.95
04	B-10-1620-082714	896679	12.51	962071	16.29	881788 17.95
05	J-COMPMS	881720	12.50	992037	16.30	920282 17.95
06	J-COMPMSD	897678	12.51	959459	16.30	902324 17.95

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHLab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758EPA Sample No.: SSTDCCC040 Date Analyzed: 09/09/2014Lab File ID: BF073668.D Time Analyzed: 03:02Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #	
12 HOUR STD	94546	5.41	367689	7.33	203138	10.08	
	189092	5.91	735378	7.83	406276	10.58	
	47273	4.91	183845	6.83	101569	9.58	
EPA SAMPLE NO.							
01	B-4-1618-082514RE <i>Not Repd</i>	328549 *	5.42	1244380 *	7.33	688829 *	10.08
02	B-5-0002-082614RE	114655	5.41	459101	7.33	243362	10.07
03	B-8-0002-082614RE	289135 *	5.42	1089640 *	7.33	618312 *	10.08

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHLab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG No.: F3758EPA Sample No.: SSTDCCC040 Date Analyzed: 09/09/2014Lab File ID: BF073668.D Time Analyzed: 03:02Instrument ID: BNA F GC Column: RTX-5 ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	357408	12.43	418609	16.23	402525	17.88
UPPER LIMIT	714816	12.93	837218	16.73	805050	18.38
LOWER LIMIT	178704	11.93	209305	15.73	201263	17.38
EPA SAMPLE NO.						
01 B-4-1618-082514RE	1291250 *	12.44	1470130 *	16.23	1378340 *	17.90
02 B-5-0002-082614RE	452214	12.43	534891	16.22	497613	17.88
03 B-8-0002-082614RE	1116520 *	12.44	1297300 *	16.23	1208460 *	17.91

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHLab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758EPA Sample No.: SSTDCCC040 Date Analyzed: 09/10/2014Lab File ID: BF073705.D Time Analyzed: 02:35Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #	
12 HOUR STD	93501	5.4	350058	7.30	187018	10.06	
	187002	5.9	700116	7.8	374036	10.56	
	46750.5	4.9	175029	6.8	93509	9.56	
EPA SAMPLE NO.							
01	B-4-0002-082514RE <i>Not Found</i>	239513 *	5.40	906340 *	7.3	505998 * 10.06	
02	B-5-1620-082614RE	213206 *	5.40	820963 *	7.3	468258 * 10.06	
03	B-6-0002-082614RE <i>Not Found</i>	282156 *	5.40	1112130 *	7.3	622491 * 10.06	
04	B-11-0002-082614	251942 * ✓	5.40	978853 * ✓	7.3	534821 * ✓ 10.06	
05	B-11-2024-082614	89909	5.40	357024	7.3	196622	10.06
06	B-7-1820-082614	207413 * ✓	5.40	815322 * ✓	7.3	436629 * ✓ 10.06	
07	B-3-0002-082614	232919 * ✓	5.40	902143 * ✓	7.3	498297 * ✓ 10.06	
08	B-8-1820-082614RE <i>Not Found</i>	251309 *	5.40	981888 *	7.3	546286 * 10.06	
09	B-2-0002-082614	229845 * ✓	5.40	877487 * ✓	7.3	497067 * ✓ 10.06	
10	B-2-0406-082614	213502 * ✓	5.40	832604 * ✓	7.3	463763 * ✓ 10.06	
11	B-1-0002-082614RE <i>Not Found</i>	255055 *	5.40	979743 *	7.3	544227 * 10.06	

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG No.: F3758

EPA Sample No.: SSTDCCC040 Date Analyzed: 09/10/2014

Lab File ID: BF073705.D Time Analyzed: 02:35

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	350707	12.4	409570	16.21	367936	17.87
	701414	12.9	819140	16.71	735872	18.37
	175354	11.9	204785	15.71	183968	17.37
	EPA SAMPLE NO.					
01	B-4-0002-082514RE <i>Not Repd</i>	908610 *	12.40	1086530 *	16.21	992413 * 17.87
02	B-5-1620-082614RE <i>Not Repd</i>	861825 *	12.41	1023050 *	16.22	953487 * 17.88
03	B-6-0002-082614RE <i>Not Repd</i>	1161500 *	12.41	1320060 *	16.22	1246100 * 17.90
04	B-11-0002-082614	1023110 * <i>/</i>	12.40	1193410 * <i>/</i>	16.22	1098110 * <i>/</i> 17.88
05	B-11-2024-082614	368825	12.40	447163	16.21	413171 17.87
06	B-7-1820-082614	825000 * <i>/</i>	12.41	950079 * <i>/</i>	16.22	895650 * <i>/</i> 17.89
07	B-3-0002-082614	942369 * <i>/</i>	12.41	1105020 * <i>/</i>	16.22	1026600 * <i>/</i> 17.88
08	B-8-1820-082614RE <i>Not Repd</i>	1020770 *	12.40	1197780 *	16.21	1146950 * 17.88
09	B-2-0002-082614	928798 * <i>/</i>	12.41	1132680 * <i>/</i>	16.22	1012940 * <i>/</i> 17.89
10	B-2-0406-082614	871217 * <i>/</i>	12.41	1022550 * <i>/</i>	16.22	958503 * <i>/</i> 17.88
11	B-1-0002-082614RE <i>Not Repd</i>	1010470 *	12.40	1162270 *	16.21	1119430 * 17.88

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHLab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG NO.: F3758EPA Sample No.: SSTDCCC040 Date Analyzed: 09/11/2014Lab File ID: BF073748.D Time Analyzed: 06:00Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	88189	5.34	331769	7.26	182370	10.00
UPPER LIMIT	176378	5.84	663538	7.76	364740	10.5
LOWER LIMIT	44094.5	4.84	165885	6.76	91185	9.5
EPA SAMPLE NO.						
01	B-11-0002-082614RE	300121 *	5.34	1161200 *	7.26	663875 *
02	B-7-1820-082614RE	191345 *	5.34	757139 *	7.26	416403 *
03	B-3-0002-082614RE	246502 *	5.34	981848 *	7.26	547246 *
04	B-2-0002-082614RE	245776 *	5.34	988314 *	7.26	560335 *
05	B-2-0406-082614RE	234588 *	5.34	897494 *	7.26	498603 *

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHLab Code: CHEM Case No.: F3758 SAS No.: F3758 SDG No.: F3758EPA Sample No.: SSTDCCC040 Date Analyzed: 09/11/2014Lab File ID: BF073748.D Time Analyzed: 06:00Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #	
12 HOUR STD	343979	12.36	420776	16.17	391070	17.82	
	687958	12.86	841552	16.67	782140	18.32	
	171990	11.86	210388	15.67	195535	17.32	
EPA SAMPLE NO.							
01	B-11-0002-082614RE	1214300 *	12.36	1423230 *	16.17	1333360 *	17.87
02	B-7-1820-082614RE	819142 *	12.36	941689 *	16.17	890176 *	17.83
03	B-3-0002-082614RE	1028440 *	12.36	1237540 *	16.17	1142100 *	17.83
04	B-2-0002-082614RE	1048320 *	12.36	1262370 *	16.17	1181100 *	17.83
05	B-2-0406-082614RE	971112 *	12.36	1121630 *	16.17	1037030 *	17.83

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.

QUOTE NO.

F3758

COC Number 032100

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Nobis Engineering
ADDRESS: 585 Minuteman St
CITY: Lowell STATE: MA ZIP: 01851
ATTENTION: Steve Vetere
PHONE: 978-703-6089 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: MURRAY NY
PROJECT NO.: 84001.03 LOCATION:
PROJECT MANAGER: S. Vetere
e-mail: Svetere@nobisengr.com
PHONE: 978-683-0891 FAX:

CLIENT BILLING INFORMATION

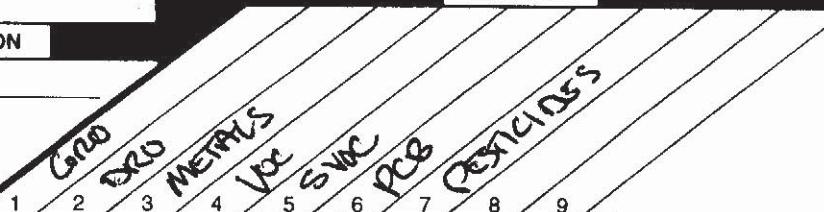
BILL TO: See Project SOW PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: _____ DAYS *
PREAPPROVED TAT: YES NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- LEVEL 1: Results only Others _____
 LEVEL 2: Results + QC
 LEVEL 3: Results (plus results raw data) + QC
 LEVEL 4: Results + QC (all raw data)
 EDD Format:



PRESERVATIVES

COMMENTS

← Specify Preservatives
 A-HCl B-HNO₃
 C-H₂SO₄ D-NaOH
 E-ICE F-Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION		# OF BOTTLES OF	PRESERVATIVES									COMMENTS						
			COMP	GRAB	DATE		1	E/F	E	E/F	E	E	E	1	2	3	4	5	6	7	8	9
1.	B-4-0002-082514	S	X		8-25	1530	8		X	X	X	X										
2.	B-4-1618-082514				8-25	1610	8		X	X	X	X										
3.	B-5-0002-082614				8-26	0740	8		X	X	X	X										
4.	B-5-1620-082614					0820	8		X	X	X	X										
5.	B-6-0002-082614					0840	8		X	X	X	X										
6.	B-6-1820-082614					0901	8		X	X	X	X										
7.	B-11-0002-082614					0930	8		X	X	X	X										
8.	B-11-1720-082614					0955	8		X	X	X	X										
9.	B-11-2024-082614					1100	8		X	X	X	X										
10.	B-7-0002-082614					1200	8		X	X	X	X										

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant	Cooler Temp. 40°C
<i>Lowell</i>	8-28 1700	1. FedEx EX	MeOH extraction requires an additional 4 oz jar for percent solid.	Ice in Cooler?: Yes
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	Comments: <i>Refer to project workorder for analysis methods</i>	
<i>RELEASER</i>	8-29-14 930	2. RS-	SAMPLE 105 truncated on last JIMS.	
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:	SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> OVERNIGHT	Shipment Complete: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
3.	.	3.	CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT	

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: NOBIS ENGINEERING

PROJECT NAME: HUNTINGTON NY

PO#:

ADDRESS: 585 MIDDLESEX ST

PROJECT NO.: 84001-03 LOCATION:

BILL TO: SEC PROJECT SOW

CITY: LOWELL STATE: MA ZIP: 01581

PROJECT MANAGER: S. VETERÈ

CITY: STATE: ZIP:

ATTENTION: STEVE VETERÈ

e-mail: SVETERE@NOBISENENG.COM

ATTENTION: PHONE:

PHONE: 978-703-6029 FAX:

PHONE: 683 0891 FAX:

ANALYSIS

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX: _____ DAYS *

 LEVEL 1: Results only Others _____

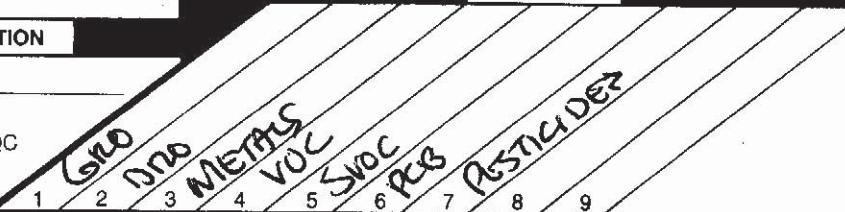
HARD COPY: _____ DAYS *

 LEVEL 2: Results + QC

EDD: _____ DAYS *

 LEVEL 3: Results (plus results raw data) + QCPREAPPROVED TAT: YES NO LEVEL 4: Results + QC (all raw data)

* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

 EDD Format: _____

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: Nobis Engineering

ADDRESS: 585 Monmouth St

CITY: Lowell STATE: MA ZIP: 01851

ATTENTION: Steve Vertere

PHONE: 978-223-6021 FAX:

PROJECT NAME: Huntington

PROJECT NO: 84001-03 LOCATION: NY

PROJECT MANAGER: S. Vertere

e-mail: Steve@nobeiseng.com

PHONE: 778-763-6029 FAX:

BILL TO: See Project

PO#:

ADDRESS: Son

CITY: STATE: ZIP:

ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *

HARD COPY: _____ DAYS *

EDD: _____ DAYS *

PREAPPROVED TAT: YES NO

* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

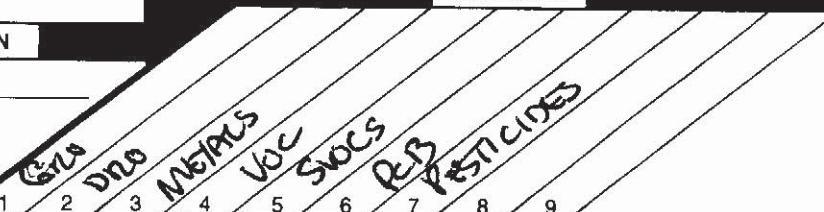
LEVEL 1: Results only Others _____

LEVEL 2: Results + QC

LEVEL 3: Results (plus results raw data) + QC

LEVEL 4: Results + QC (all raw data)

EDD Format: _____



CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS								
			COMP	GRAB	DATE		1	E/F	E	E/F/E	E	E	E	E	1	2	3	4	5	6	7	8	9	
1.	B-9-1620-082714	S			✓ 8/28/14	1020	Q	X	X	X	X	X	X	X	1	2	3	4	5	6	7	8	9	← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other
2.	B-10-0002-082714				✓		920	8	X	X	X	X	X	X										
3.	B-10-1620-082714				✓		935	8	X	X	X	X	X	X										
4.	DUP-1				✓		2400	K	X	X	X	X	X	X										
5.																								
6.																								
7.																								
8.																								
9.																								
10.																								

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant MeOH extraction requires an additional 4 oz jar for percent solid. Comments:	Cooler Temp. 4°C Ice in Cooler?: yes
1. <i>SB</i>	8-28-1700	1. Fed TX		
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:		
2. <i>Fed BX</i>	8-29-14 930	2. RSJ		
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:	SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> OVERNIGHT CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT	Shipment Complete: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
3.		3.	Page 3 of 3	